

The South Carolina Forestry Commission Annual Report

FY 2009-2010

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STATE COMMISSION OF FORESTRY

Members of the Commission

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Sam Coker, Gilbert

James B. Thompson, Greenwood

Administration

Henry E. (Gene) Kodama, State Forester

Joel T. Felder, Deputy State Forester

MISSION

The mission of the Forestry Commission is to protect, promote, enhance, and nurture the forest lands of South Carolina in a manner consistent with achieving the greatest good for its citizens.

Responsibilities extend to all forest lands, both rural and urban, and to all associated forest values and amenities including, but not limited to, timber, wildlife, water quality, air quality, soil protection, recreation, and aesthetics.

The Forestry Commission shall have general and specific responsibilities for the promulgation and enforcement of laws and regulations related to protection of the forest and its associated values.

The Commission shall be responsible for promoting and developing the appropriate technologies to accomplish its objectives, and for the development and promulgation of Best Management Practice Guidelines for South Carolina's forest land.

FOREST PROTECTION

This section encompasses Fire Management, Law Enforcement, Forest Health, and Equipment programs.

FIRE MANAGEMENT

The South Carolina Forestry Commission is responsible for protecting 13,657,033 acres of forestland in South Carolina from wildfire. This total area protected is based on the 2001 Forest Inventory Analysis data with 10% added to cover adjacent non-forest land. This figure includes 101,320 acres of federal land protected under special contract, which includes such lands as the Carolina Sandhills National Wildlife Refuge and the Corps of Engineers land around such lakes as Lake Thurmond, Hartwell, and Russell. Also included is forestland protected by Mutual Aid, which is approximately 824,801 acres of additional federal land that includes lands such as the Francis Marion and Sumter National Forests, National Park lands, and lands owned by US Fish and Wildlife Service.

Wildfire Summary

Agency firefighters recorded 1,639 fires that burned 8,443.9 acres of forestland and grassland during the fiscal year. The number of fires was well below average due to wet weather this spring

In fiscal year 2009-2010 wildfires destroyed 12 homes and damaged 18 others. In addition, 45 other buildings were destroyed and 8 buildings were damaged. There were 37 vehicles damaged.

Fire Protection Cooperatives

The Forestry Commission has cooperative arrangements with 12 fire and emergency management entities. Activities for each cooperative agreement during FY 2009 are as follows:

Southeastern States Forest Fire Compact Commission: Formed in 1954, the Compact allows member states to provide and receive mutual aid in fighting wildland fires. Member states of the Southeastern States Forest Fire Compact include: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. No Forestry Commission resources were mobilized for compact assignments during fiscal year 2009-2010.

SC Emergency Management Division: SC Forestry Commission personnel, including incident management teams, participated in several emergency response training sessions involving hurricanes, earthquakes, weapons of mass destruction, and dam failures. Agency response and contingency plans were evaluated and updated.

SC Army National Guard: Under an agreement with the National Guard, helicopter firefighting support is available when requested by SCFC. Requests from SCFC are channeled through EMD and the Governor's Office to activate the Guard. The Guard's primary firefighting mission is providing helibucket service to SCFC Incident Commanders using SCFC's 780-gallon Bambi buckets. Guard helicopters are also available to transport firefighters into rough or inaccessible terrain. Joint training between the SC National Guard and the SC Forestry Commission is held annually to ensure mission readiness.

Volunteer Fire Assistance Program: Pass through funds from the National Fire Plan were distributed as follows:

Title II Grants for structural and wildland firefighting needs: 97 Fire Departments requested \$535,319 worth of firefighting equipment of which 93 fire departments were funded for \$105,458.

National Fire Plan Title IV Grants for wildland firefighting needs: 74 Fire Departments requested \$440,327 worth of firefighting equipment of which 70 fire departments were funded for \$116,293.

Federal Excess Personal Property program (FEPP): 8 items valued at \$28,559 were picked up this year from local military under this program due to low availability. The total value of inventoried FEPP property now stands at over \$25 million for 1,278 items, most of which is on loan to Volunteer Fire Departments. In an effort to improve the program and bring all departments into compliance, SCFC field personnel and the FEPP program manager encouraged fire departments to turn in any equipment that was not being properly maintained or actively used. Field visits were also conducted to help with the inventory verification and reiteration of the program's intent. As a result, 269 items (valued at \$3.5 million) were either transferred to other fire departments or where returned to the Columbia office where most were sold on auction. Such sales accounted for the disposal of 173 items valued at \$2.5 million. Proceeds from these sales are collected by the USDA Forest Service.

National Weather Service: NWS provides daily fire weather forecasts and atmospheric dispersion information. During the year, SCFC and NWS work to improve content of daily weather forecasts. The NWS provided spot weather forecasts for several wildfires as requested by the SCFC.

USDA Forest Service: A mutual aid agreement between the US Forest Service and SCFC allows both parties to provide initial attack firefighting within one-quarter mile of National Forest boundaries. SCFC provided initial attack on a number of fires on the Francis Marion and Sumter National Forests during the fire season, and SCFC investigators assisted with wildfire investigation.

DOD Corps of Engineers: Beginning in 1997, SCFC has provided all fire suppression services on 55,320 acres of Corps of Engineers land. Under the terms of the agreement, actual fire suppression costs are reimbursed to the SCFC.

USDI Fish and Wildlife Service: Under the terms of a 1992 land acquisition agreement, SCFC provides initial attack fire suppression on the 46,000 acre Carolina Sandhills National Wildlife Refuge. The agreement terminates in 2042. SCFC maintains mutual aid firefighting agreements with the following National Wildlife Refuges: Ace Basin, Cape Romain, Savannah, Pinckney Island, and Santee.

USDI National Park Service: Agreement maintained; no reportable activity.

Wildland Fire Protection Partnership: Organized in 1991, the Partnership seeks solutions to wildfire management problems in the wildland-urban interface. Membership includes the SC Forestry Commission, USDA Forest Service, SC Firemen's Association, Department of Health and Environmental Control, SC Division of Emergency Preparedness, SC Fire Marshal, SC Fire Academy, and SC Forestry Association (ex officio).

Prescribed Fire Council: Organized in 2003, the goal of the Prescribed Fire Council is to increase the amount of prescribed burning in SC. The Council is working on increasing the capacity to get burning done in SC and in educating the public on the benefits of burning. The SCFC is a charter member and active participant in the council.

Homeland Security: Through a grant from the Department of Homeland Security (DHS) and the South Carolina Law Enforcement Division (SLED), the SCFC continued to train incident management teams (IMT) to improve the effectiveness of response to large incidents. Forestry Commission IMTs were staffed, training was conducted for individual team members and teams, and team members participated in training assignments to complete taskbooks to validate their training. Grant funds continued to support an Incident Management Team (IMT) Coordinator position to facilitate the development of nationally-qualified IMTs from within the Forestry Commission and to ensure consistency among four multi-disciplinary (non-SCFC) Type 3 IMTs located in each region of the State. The first South Carolina IMT conference was held in Charleston during January. Team members from all teams attended, along with representative from SLED, EMD, and national incident management teams.

Fire Weather

Weather Stations: The Forestry Commission, USDA Forest Service, USDI National Park Service, Department of Defense (Ft. Jackson), and USDI Fish and Wildlife Service share a network of 12 Automated Weather Stations across the state. Data from these stations is used in daily calculations for the National Fire Danger Rating System. Weather readings from these stations are available 24 hours a day for wildfire and prescribed fire management purposes.

Inches Precipitation: FY 2009*

Month	Precipitation
July, 2009	4.23
August	3.87
September	2.99
October	4.88
November	4.84
December	8.42
January, 2009	4.61
February	3.21
March	2.9
April	1.289
May	3.41
June	4.18
Total	48.82

*Source – National Climatic Data Center

Precipitation Last 5 Years*

Fiscal Year	Precipitation (inches)	Departure from Normal**
2005-06	44.63	-3.57
2006-07	43.07	-5.13
2007-08	37.53	-10.67
2008-09	49.36	1.16
2009-10	48.82	0.91

*Source – National Climatic Data Center

**Statewide normal, based on previous 30 years

Readiness Plan: The daily readiness level of Forestry Commission firefighters is based on fire danger data, available number of firefighters, and status of firefighting equipment. Average readiness levels for each of the three regions for FY 2010 are as follows:

Region	Coastal	Pee Dee	Piedmont
Readiness 1 (No wildfire danger)	11days	0 days	0 days
Readiness 2 (Low wildfire danger)	325 days	281 days	331 days
Readiness 3 (Moderate wildfire danger)	57 days	84days	44 days
Readiness 4 (High wildfire danger)	0 days	1 day	0 days
Readiness 5 (Extreme wildfire danger)	0 days	0 days	0 days

Burning Ban and Red Flag Fire Alert: There were no Burning Bans declared or Red Flags Fire Alerts issued during fiscal year 2009-2010.

Dispatch and Air Operations

Dispatch: Forestry Commission dispatch is by closest available resource, regardless of political or administrative boundaries. Dispatching was handled by regional dispatch centers located in Walterboro, Florence, and Newberry.

Aviation – During the year, SCFC pilots flew 13 different Federal Excess Property aircraft for a total of 399 missions for only 985 hours. Reduced aviation budgets have curtailed aerial detection flights and have limited flights to moderate to high fire danger days when aircraft are needed for wildfire suppression assistance.

During the year, SCFC pilots flew a total of 985 hours (Coastal- 447 hours, Pee Dee-233 hours, Piedmont-305 hours). No contract aircraft were utilized.

Prescribed Fire

Certified Prescribed Fire Manager Program: Three Certified Prescribed Fire Manager Programs were conducted during the year with 123 participants. This course focuses on planning prescribed burns to comply with mandated air quality standards.

Prescribed Burning for Forestry, Wildlife, and Agriculture FY10

REGION	Forest Understory		Forestry Site Prep		Wildlife		Agriculture	
	Number	Acres	Number	Acres	Number	Acres	Number	Acres
Coastal	1,852	185,395.1	1,562	7,455.9	576	72,504.6	1,933	31,474.0
Pee Dee	1,039	56,456.7	888	3,189.3	497	28,805.9	2,000	34,007.7
Piedmont	569	63,846.8	1,324	3,637.9	122	3,741.3	481	3,687.3
State Total	3,460	305,698.5	3,774	14,283.1	1,195	105,051.7	4,414	69,168.9

Total Forestry, Wildlife & Agriculture Burns: 12,843 for 494,202.2 acres

Fire Prevention Information

Wildland-Urban Interface (WUI): Work continued on assessing wildland-urban interface communities and their risks to wildfire. Primary involvement continues to spread in the Horry County area and Oconee County area, including assistance to several new communities in counties previously unassisted. Emphasis of the Firewise program is to increase the awareness of homeowners to their responsibility in helping to reduce the risk of their homes from burning in a wildland fire. This was accomplished by conducting Firewise workshops such as 'How to Have a Firewise Home' (7 workshops for 282 people) and various Firewise-related presentations/meetings (38 reaching over 1800 people) to interested communities and community leaders. The Firewise mobile exhibit and a table top Firewise Home exhibit were used on 15 different occasions demonstrating to over 13,400 people the wildfire potential and associated risks to communities and homeowners as well as how homeowners can mitigate those risks. The exhibit was used in cooperation with the USFS, USFWS, and NPS. Fuels mitigation plans, workdays and assessments were conducted throughout the state. The SCFC has conducted a total of 601 community assessments to date with 544 of those rating at moderate to extreme in regards to their risk level. Thirty-six (36) assessments were completed with twenty (20) Community Wildfire Protection Plans developed and delivered this year. Keowee Harbours – Oconee County (#5), Chickasaw Point- Oconee County (#6), Waterford Pointe- Oconee County (#7), and The Farm – Horry County (#8) were recognized with the national status of Firewise Community/USA. Several other communities throughout the state are in the process of obtaining Firewise status.

Wildfire Prevention: A statewide wildfire prevention awareness effort was made across the state prior to the spring 2010 wildfire season to promote safe debris burning; the states number one cause of wildfires. Field personnel utilized trap lines in every county to reach those communities situated in high-fire occurrence areas or those communities at risk situated in the wildland urban interface. In cooperation with and assistance from local fire departments and some Clemson Extension Agents, SCFC field personnel throughout the state distributed "Think Before You Burn" (TBYB) promotional materials to 1,049 schools, businesses and public buildings. Over 47,600 TBYB brochures were distributed along with just over 700 Spanish versions (mainly in the Coastal region).

Interviews were conducted with local media, public service announcements were distributed and billboards placed in areas where debris burns occur to increase public awareness. The Think Before you Burn message was also distributed to rural stores and businesses where the TBYB posters were posted in their windows and burning notification magnets placed on the counters for customers to pick up so they would have the appropriate county notification phone number handy.

Fires by Cause				
			Average Acres	Percent of Total
Cause	Fires	Acres Burned	per Fire	Fires FY10
LIGHTNING	60	687.1	11.5	3.66%
CAMPFIRE	11	55.1	5.0	0.67%
SMOKING	28	88.8	3.2	1.71%
DEBRIS BURNING	782	3,558.1	4.6	47.71%
INCENDIARY	311	2,109.4	6.8	18.97%
EQUIPMENT USE	162	816.1	5.0	9.88%
RAILROAD	11	86.6	7.9	0.67%
CHILDREN	106	199.8	1.9	6.47%
MISCELLANEOUS	168	842.9	5.0	10.25%
Totals	1,639	8,443.9	5.2	100.00%

Five-Year Summary: All Fires

Fiscal Yr.	Acres Protected	# Fires	Acres Burned	Avg. Acres/Fire	% Area Burned
2005-06	13,657,033	3,020	16,294.2	5.4	0.12
2006-07	13,657,033	2,972	16,677.1	5.6	0.12
2007-08	13,657,033	3,678	21,945.7	6.0	0.16
2008-09	13,657,033	2,001	30,739.6	15.4	0.23
2009-10	13,657,033	1,639	8,443.9	5.2	0.06
Five Year Averages		2,662	18,820.1	7.5	0.14

**Acres Protected and Total Burning Notifications by
County, Fiscal Year 2010**

County	Acres Protected	Smoke Mgt. Notifications	Other Notifications
Abbeville	248,551	117	2,663
Aiken	524,743	560	14,839
Allendale	199,005	359	904
Anderson	216,023	208	14,217
Bamberg	202,862	390	1,948
Barnwell	266,959	403	3,494
Beaufort	130,448	182	8,182
Berkeley	595,291	633	17,424
Calhoun	151,294	277	3,099
Charleston	318,526	290	7,357
Cherokee	168,077	67	3,963
Chester	315,565	97	2,931
Chesterfield	416,239	364	7,199
Clarendon	238,952	412	5,022
Colleton	560,896	743	13,711
Darlington	176,333	225	7,798
Dillon	163,935	145	3,142
Dorchester	272,524	212	9,986
Edgefield	279,433	179	2,275
Fairfield	408,433	119	2,520
Florence	308,707	374	12,190
Georgetown	400,136	419	9,434
Greenville	296,082	85	12,438
Greenwood	205,593	112	3,074
Hampton	303,663	667	3,501
Horry	493,012	487	20,915
Jasper	341,036	463	3,415
Kershaw	376,376	234	14,929
Lancaster	291,845	101	4,469
Laurens	337,499	91	5,079
Lee	121,735	225	1,661
Lexington	256,939	360	29,215
Marion	226,896	242	6,264
Marlboro	226,676	123	4,758
McCormick	223,394	75	1,071
Newberry	334,566	128	3,101
Oconee	292,590	82	10,703
Orangeburg	446,887	744	13,320
Pickens	236,029	100	10,633
Richland	352,904	215	7,178
Saluda	196,376	140	1,545
Spartanburg	286,496	149	7,992
Sumter	268,338	325	12,388
Union	277,640	58	439
Williamsburg	407,761	748	7,007
York	293,768	114	11,133
Total	13,657,033	12,843	350,526
	Total Smoke Mgt. & Other Notifications	363,369	

Total All Land Fires by County & Cause -- Fiscal Year 2010

COUNTY	LIGHTNING		CAMPFIRE		SMOKING		DEBRIS BURNING		INCENDIARY		EQUIPMENT		RAILROAD		CHILDREN		MISC		Total	Total
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
ABBEVILLE							9	31.9	8	10.2	6	6.3					4	4.1	27	52.5
AIKEN	7	8.4	1	4.0	1	0.1	37	245.7	7	61.5	7	273.5	1	8.0	13	30.1	15	33.2	89	664.5
ALLENDALE					1	1.3	9	7.8	3	19.0	2	15.1			1	2.5	1	1.2	17	46.9
ANDERSON	1	0.5	1	5.0			7	15.0	2	2.5	2	5.5			1	0.5			14	29.0
BAMBERG							9	15.0	2	9.0	3	1.1					3	3.0	17	28.1
BARNWELL	1	1.0	1	6.5			17	60.5			1	7.0			3	22.0	1	5.0	24	102.0
BEAUFORT							12	64.1	7	61.1	1	0.1			3	1.4	2	2.2	25	128.9
BERKELEY	1	6.0	1	9.5	2	2.3	29	182.5	29	312.9			1	25.0	2	4.0	7	21.6	72	563.8
CALHOUN	1	0.5					12	12.9			6	8.8					2	4.0	21	26.2
CHARLESTON					1	5.0	7	28.5	6	9.5	1	0.5					1	1.5	16	45.0
CHEROKEE			1	1.0			3	7.5	1	0.5	14	10.9			2	0.2	1	0.1	22	20.2
CHESTER	1	1.0			1	3.0	5	9.9	1	0.1	3	2.0			1	0.5			12	16.5
CHESTERFIELD	6	195.0	1	0.1	4	7.5	37	153.3	3	34.0	10	25.1	1	8.0	4	2.4	4	10.5	70	435.9
CLARENDON	1	0.3					49	143.8	22	169.3	4	18.5			1	0.5	2	2.2	79	334.6
COLLETON							38	159.6	19	238.9	3	2.6					5	105.1	65	506.2
DARLINGTON	4	1.5					46	149.2	9	127.2	3	7.6			7	12.0	12	120.0	81	417.5
DILLON							5	9.0	10	31.0	7	62.5			2	1.6	9	147.9	33	252.0
DORCHESTER							19	681.5	12	59.1					3	4.0	1	2.0	35	746.6
EDGEFIELD	1	1.5					7	12.7			2	77.0					2	10.1	12	101.3
FAIRFIELD	2	10.2					8	15.5	2	4.5	7	33.6			2	10.1	7	7.3	28	81.2
FLORENCE	1	0.3			2	5.5	32	72.9	13	108.2	9	17.7			7	8.8	10	11.7	74	225.1
GEORGETOWN							11	37.3	13	165.0					1	2.0			25	204.3
GREENVILLE			1	10.5			8	28.0	3	4.2	1	0.5	1	2.0	3	8.5	2	3.1	19	56.8
GREENWOOD							10	26.7	2	2.5	1	1.0			1	2.0	3	67.0	17	99.2
HAMPTON	8	111.6					16	76.2	4	7.2	2	2.1			1	5.0	1	4.0	32	206.1
HORRY	6	203.5					17	58.7	10	120.1	2	6.0			9	12.1	2	1.1	46	401.5
JASPER	2	20.0					26	102.6	8	11.7			1	3.0	1	0.1	5	92.2	43	229.6
KERSHAW	4	92.1			1	0.3	22	89.3	4	3.7	7	40.5			5	17.2	6	12.2	49	255.3
LANCASTER			1	3.0			5	11.3	2	1.2	2	1.1	1	0.2	1	0.2	3	40.4	15	57.4
LAURENS	1	10.0	1	0.5			3	4.5					1	0.5	1	2.0	2	10.3	9	27.8
LEE					1	3.0	19	115.7	12	34.9	6	37.9					1	1.0	39	192.5
LEXINGTON	1	3.0	2	15.0			22	31.4	9	24.9	4	2.5			10	17.3	19	36.3	67	130.4
MARION	1	1.0					4	8.6	2	3.0							1	4.0	8	16.6
MARLBORO	1	0.5			2	0.2	18	33.5	6	14.6	1	3.0	1	35.0	1	0.1	3	4.0	33	90.9
MCCORMICK							2	1.5			1	0.5							3	2.0
NEWBERRY	2	7.2					3	1.4									1	0.2	6	8.8
OCONEE	1	3.0			3	1.3	8	9.8	2	1.6	11	11.1			2	0.6	5	14.8	32	42.2
ORANGEBURG	3	1.8			4	50.7	60	186.2	4	12.2	10	10.1			5	1.1	3	4.0	89	266.1
PICKENS							12	21.8	1	10.0	3	3.2			1	2.0	4	14.0	21	51.0
RICHLAND	1	0.1					11	92.3	5	26.5	10	79.1	1	4.0	1	0.8	6	17.4	35	220.2
SALUDA	2	7.1					4	11.3			1	0.5			1	1.0			8	19.9
SPARTANBURG							5	45.6	1	3.0			2	0.9	2	5.5	2	6.0	12	61.0
SUMTER					1	1.5	35	142.8	15	49.3	3	27.0			3	2.6	3	3.0	60	226.2
UNION							7	32.8			3	2.3			2	6.0	3	2.6	15	43.7
WILLIAMSBURG					3	3.1	54	304.4	52	355.3	2	7.3			2	6.1	2	3.0	115	679.2
YORK					1	4.0	3	5.6			1	5.0			1	7.0	2	9.6	8	31.2
State Total	60	687.1	11	55.1	28	88.8	782	3,558.1	311	2,109.4	162	816.1	11	86.6	106	199.8	168	842.9	1,639	8,443.9

Total All Land Fires by County & Month -- Fiscal Year 2010

COUNTY	2008												2009												Total Fires	Total Acres	
	July		August		September		October		November		December		January		February		March		April		May		June				
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres			
ABBEVILLE	1	1.4	1	1.0	2	0.3							4	23.0	2	4.5	3	2.7	11	15.0			3	4.6	27	52.5	
AIKEN	12	239.3	3	6.0	7	21.5	1	0.2	2	8.0			5	69.1	5	38.0	14	65.2	21	149.5	10	27.5	9	40.2	89	664.5	
ALLENDALE	2	15.5	3	11.0	2	2.5	2	0.2	1	0.3					1	0.2	4	15.9	2	1.3					17	46.9	
ANDERSON	2	5.5	3	8.5	1	2.5									2	0.7	3	8.1	1	2.4	2	1.3			14	29.0	
BAMBERG					3	2.5	1	0.1	1	0.5							4	9.0	5	8.0	1	2.0	2	6.0	17	28.1	
BARNWELL	1	1.0			1	1.0					1	6.5	2	10.0	2	2.5	8	29.5	9	51.5					24	102.0	
BEAUFORT	2	1.5											1	3.0	3	12.1	11	87.2	6	24.1			2	1.0	25	128.9	
BERKELEY	2	7.8	3	6.3			1	1.0					3	4.5	6	44.9	28	290.9	24	174.4	4	33.0	1	1.0	72	563.8	
CALHOUN	1	2.0	1	0.5	4	3.6							2	0.6	3	6.1	3	5.1	3	2.2	2	0.6	2	5.5	21	26.2	
CHARLESTON													1	1.5	1	0.1	7	31.7	6	11.2	1	0.5			16	45.0	
CHEROKEE	1	5.0	1	0.1	11	2.9			1	1.0			1	0.1	1	5.0	3	3.1	2	1.0			1	2.0	22	20.2	
CHESTER					1	0.8	1	0.1									5	12.5	1	0.5	2	1.1	2	1.5	12	16.5	
CHESTERFIELD	7	47.4	3	7.3	5	14.0	1	3.0	1	0.1	1	3.0	5	2.8	8	40.0	16	103.5	10	119.0	9	36.3	4	59.5	70	435.9	
CLARENDON	1	2.5			12	34.3	3	3.7	2	35.0	2	10.1	4	16.2	4	8.2	20	142.0	21	59.0	6	16.8	4	6.8	79	334.6	
COLLETON					8	77.2	1	0.1	3	2.0			2	11.0	3	4.0	20	313.9	24	90.0	3	7.0	1	1.0	65	506.2	
DARLINGTON	4	3.5	1	20.0	12	36.7	6	15.3	1	1.0			7	12.5	13	38.0	15	134.5	15	153.1	2	0.6	5	2.3	81	417.5	
DILLON	3	25.2	1	0.5	4	54.0	1	1.0	3	17.5			4	19.5			8	59.0	5	10.6	3	64.5	1	0.2	33	252.0	
DORCHESTER	1	0.1	1	0.7	2	4.5					1	0.1	1	0.5	1	2.0	13	521.7	9	203.7	3	12.0	3	1.3	35	746.6	
EDGEFIELD	3	3.1	2	76.5													5	20.2			1	1.0	1	0.5	12	101.3	
FAIRFIELD	4	5.5	4	25.0	4	9.5	3	4.1					2	0.7	3	1.4	1	1.0	1	9.0	5	17.8	1	7.2	28	81.2	
FLORENCE	1	0.3			6	5.7	4	13.7	1	20.0			3	6.5	5	13.4	16	85.4	32	73.3	5	6.3	1	0.5	74	225.1	
GEORGETOWN					4	1.2					1	2.0			3	11.6	9	80.0	7	39.5			1	70.0	25	204.3	
GREENVILLE	2	9.5	1	6.0	3	2.3			1	0.2	1	3.0			1	3.0	4	27.5	6	5.3					19	56.8	
GREENWOOD	1	2.0			1	1.0	1	62.0			1	3.0			4	15.5	3	9.0	4	5.2	1	1.5		2	3.0	17	99.2
HAMPTON	1	0.2	1	1.0			1	0.5					1	0.5	4	4.6	5	15.2	8	65.5	1	0.5	10	118.1	32	206.1	
HORRY	1	2.0	1	0.5	1	1.2	1	0.8					2	5.0	5	9.1	5	22.5	16	129.8	4	25.1	10	205.5	46	401.5	
JASPER	1	0.3	1	10.0	2	1.2	1	80.0					2	3.0	7	17.3	14	74.9	11	23.9	3	15.0	1	4.0	43	229.6	
KERSHAW	4	16.1	2	77.0	4	1.8	3	25.2			1	0.3	5	11.7	3	14.5	12	70.6	8	33.2	4	4.0	3	0.9	49	255.3	
LANCASTER			1	0.2	1	5.0					1	0.1			1	0.2	4	46.2	6	4.7	1	1.0			15	57.4	
LAURENS	1	1.0	2	1.0											1	2.5	2	12.0	3	11.3					9	27.8	
LEE			3	12.0	6	15.8	3	1.6					2	4.5	2	4.0	10	39.1	6	77.8	5	7.7	2	30.0	39	192.5	
LEXINGTON	11	9.9	8	12.7	1	0.2	2	4.3	1	0.3			2	3.5	7	11.2	10	20.6	10	33.2	10	28.9	5	5.6	67	130.4	
MARION	1	1.0													1	4.0	2	7.0	2	3.5	1	1.0	1	0.1	8	16.6	
MARLBORO	3	1.1			2	0.6	3	5.6	2	1.5			1	5.0			8	22.3	8	51.6	4	2.6	2	0.6	33	90.9	
MCCORMICK																			1	1.0	2	1.0			3	2.0	
NEWBERRY	2	1.3	1	3.0											2	0.3							1	4.2	6	8.8	
OCONEE	3	3.6	1	0.1	1	0.2							1	1.0	3	2.3	9	8.7	14	26.3					32	42.2	
ORANGEBURG	4	3.4	4	6.2	6	1.9	4	3.1					7	31.0	5	50.1	21	121.8	18	38.6	8	2.9	12	7.1	89	266.1	
PICKENS					1	0.2			1	0.5			1	0.1	5	20.5	8	21.2	5	8.5					21	51.0	
RICHLAND			2	1.6	2	0.6							2	16.0	3	27.0	10	83.2	5	72.5	8	18.8	3	0.5	35	220.2	
SALUDA	2	1.1	2	7.5									2	11.0									2	0.3	8	19.9	
SPARTANBURG			3	4.8					1	2.5			1	10.0			2	3.5	4	40.1			1	0.1	12	61.0	
SUMTER	1	0.8	3	11.2	5	17.9	4	6.3	3	9.3	1	1.0	3	3.7	3	6.6	14	46.1	15	90.1	6	12.4	2	20.8	60	226.2	
UNION	2	7.0	1	0.1					1	4.0			1	0.1			7	29.0	2	2.5	1	1.0			15	43.7	
WILLIAMSBURG	1	2.5	2	0.6	10	16.7	1	0.5	1	1.0			9	52.4	7	7.6	33	274.5	41	301.5	6	16.5	4	5.4	115	679.2	
YORK	1	1.6	1	8.0									1	0.6			4	14.0	1	7.0					8	31.2	
Grand Total	90	431.0	67	326.9	135	341.3	49	232.4	27	104.7	10	26.1	94	356.1	129	426.5	404	2,987.2	406	2,227.7	123	366.7	105	617.3	1,639	8,443.9	

Forest Health

The Forest Health Program, in cooperation with the State Division of Plant Industry and the U.S. Forest Service, maintains a program to detect, evaluate, and suppress forest pests. Through cooperative agreements, these agencies make their technical assistance and advice available to the Forestry Commission.

The current forest pest detection and reporting system involves the reporting by field foresters of forest pests that are causing abnormal losses, require control action, or which may present new problems. Aerial surveys are made periodically for specific pests to determine occurrence and the need for suppression action.

Major Insect Problems

Southern Pine Beetle

The Southern Pine Beetle outbreak that began in York County in 1997 collapsed over most of the outbreak zone. As of June 30, 2009, there were no counties in outbreak status.

The calendar year 2003 was our worst on record for losses to Southern Pine Beetle. In that period, we had over \$255 million in pines killed by the SPB.

In fiscal year 2009-2010, the losses were minimal. During that time, SCFC foresters and technicians plotted 178 active beetle spots containing 5,063 trees. These trees contained a volume of 12,610 trees. This timber had an estimated volume of 281 cords and 0.2 million board feet. This timber had a green stumpage value of \$64,827.

During the spring of 2010, 27 counties were pheromone trapped for prediction of Southern Pine Beetle population trends. No counties trapped enough beetles to predict a severe outbreak. Oconee County trapped sufficient beetles receive a prediction of static – moderate pine mortality. Aerial surveys were in progress at the end of the fiscal year and little beetle activity was found statewide. Surveys will continue as needed.

The SCFC continued in a SPB Prevention and Restoration Program funded by the U.S. Forest Service. This programs' aim is to prevent or reduce the potential damage due to Southern Pine Beetle. In this program SCFC personnel make forest management recommendations for practices known to minimize future beetle damage. These include thinning, prescribed burning, planting at low density, matching planted species to site, and other known mitigation measures. This program funded approximately six full time SPB forester level positions and a coordinator.

Hemlock Woolly Adelgid

An exotic insect pest of hemlock, the Hemlock Woolly Adelgid (HWA) was discovered in South Carolina in 2001. Hemlock Woolly Adelgid is a small insect that feeds by sucking plant juices from the host hemlock tree. Unfortunately, heavy infestations of this pest can kill hemlocks and control is very difficult, especially in the general forest. Clemson University has established an insect rearing facility to raise insect predators of the Adelgid. The laboratory is currently rearing two species of predatory beetles; these beetles are released in HWA infested stands. Unfortunately, we may face the loss of hemlock as an important forest species. We continued a sub-grant contract with Clemson University Department of Entomology, Soils, and Plant Sciences to rear and release HWA predatory beetles in South Carolina.

Using funds from the Hemlock Woolly Adelgid Control ARRA grant, 6 temporary applicators treated via soil injection with imidacloprid 3,694 individual hemlock trees (both Carolina and Eastern Hemlocks) for a total of 36,044 inches of diameter that were infested with Hemlock Woolly Adelgid from 8 April – 8 May 2010. These trees were located in Jocassee Gorges (DNR owned property), Long Shoals Roadside Park and Poe Creek (SCFC owned property), and in the Mountain Bridge Wilderness Area (SC Parks, Recreation, and Tourism owned property). We will resume treating Hemlock Woolly Adelgid infested hemlocks this fall in Greenville, Pickens, and Oconee counties with temporary applicators.

Early Detection Rapid Response for Exotic Bark and Ambrosia Beetles

The Insect and Disease section deployed 36 Lindgren Funnel traps at 12 locations in 5 counties (Berkeley, Charleston, Chesterfield, Lexington, and York) to detect the presence of exotic bark and ambrosia beetles. At each location, three traps with a different lure (Ethanol, Ethanol and Alpha-pinene, or 3-component Ips lure) were deployed the week of 8 March and were active through 11 June. The insects in all traps were sorted by the entomologist and all bark and ambrosia beetles were sent to a USFS entomologist for analysis. A total of 25,882 individual bark and ambrosia beetles were captured representing 54 species. One specimen of *Xyleborinus octiesdentatus* was captured in the ethanol and alpha-pinene trap on one location in Charleston county on April 7. This is the first record of this species in South Carolina. It is a non-native species was previously collected in traps in Louisiana and Alabama

in 2009. Other than the specimens collected in traps in those states there have been no signs of an infestation. This beetle is native to China, Japan, South Korea where its known hosts are *Carpinus laxiflora* (Siebold and Zuccarini) Blume (Corylaceae), *Cleyera* sp., *Eurya japonica* Thunberg (Theaceae) and *Illicium religiosum* Siebold (Illiciaceae), and *Illex rotunda* Thunberg (Aquifoliaceae).

Emerald Ash Borer

Currently, this exotic beetle is not yet a problem in South Carolina, but it is found in Illinois, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Ontario, Pennsylvania, Tennessee, Quebec, Virginia, West Virginia, and Wisconsin. We performed checks of stressed, dying, or dead Ash in South Carolina on an on-call basis to certify our lack of infestation. Additionally, field assistance was given to USDA APHIS and Clemson University Department of Plant Industry in EAB trap placement.

European (*Sirex noctilio*) Woodwasp

The Insect and Disease section trapped for an exotic woodwasp (*Sirex noctilio*) that is currently found in several counties in New York, Pennsylvania, Michigan, and Vermont.

Redbay Ambrosia Beetle/ Laurel Wilt Disease

In November 2004, an exotic ambrosia beetle, *Xyleborus glabratus* Eichhoff, was discovered in a dead redbay tree on Hilton Head Island. The beetle attacks redbay trees and introduces a fungus (*Raffaelea lauricola*) into the tree. Since the discovery of *X. glabratus* in 2004, the beetle and its associated fungus has been found in eleven (12) South Carolina counties: Jasper, Beaufort, Hampton, Colleton, Charleston, Bamberg, Barnwell, Allendale, Dorchester, Orangeburg, and Horry Berkeley. The beetle and fungus has also been found in 29 Georgia counties, in 25 Florida counties, and in one county in Mississippi. Unfortunately, in the areas where the beetle has been found, there is a large loss of red bay (up to 90% in some locations). A formal survey of the South Carolina counties with redbay trees was conducted. In this survey, redbay trees in uninfested counties were sampled and sent to a USDA Forest Service pathologist for testing for the Laurel Wilt disease.

Major Disease Problems

Oak Wilt

Oak wilt disease has been identified in Aiken, Barnwell, Chesterfield, Kershaw, Lancaster, Lee, Lexington, Richland, and Darlington counties. This disease appears to be static and causing losses only to low value oaks. Since there is potential for loss of valuable trees, including urban trees, surveys and on-call evaluations are made to evaluate the spread.

Dutch Elm Disease

Dutch Elm disease has been confirmed in Aiken, Anderson, Cherokee, Chester, Chesterfield, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, Marlboro, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg, and York counties. It is expected to gradually spread through the state because the primary agent of spread is the smaller European elm bark beetle that occurs statewide.

Dogwood Anthracnose

In 1988 a new anthracnose disease of dogwood was noted for the first time in South Carolina. This disease is caused by the fungus, *Discula destructiva*. Symptoms include foliage blighting, canker formation, and progressive deterioration. The fungus usually kills infected trees in two to three years. At this time infected trees have been found in Anderson, Greenville, Laurens, Oconee, Pickens, and Spartanburg counties. Dogwoods in those counties will be monitored periodically to determine the rate of spread of this potentially devastating disease.

Sudden Oak Death (caused by *Phytophthora ramorum*)

Sudden Oak Death is an exotic disease caused by a fungus in the genus *Phytophthora*. It is presently known to occur only on the West Coast in the United States. This disease kills oaks and causes leaf spots on many other plant species. Testing of eastern species of oaks in California has shown that they could be susceptible to this disease if the disease were to occur in the eastern United States. Unfortunately, several nursery plants infected with *Phytophthora ramorum* were shipped to South Carolina from the area of known infestation. No local spread of the disease was detected and the infected nursery stock was destroyed.

As part of a southeastern project, we are cooperating with Clemson University in a stream baiting survey to determine if the disease occurs in South Carolina. Stream baiting survey to detect the fungus that causes SOD continued in the spring of 2010. This survey was ongoing at the end of the fiscal year.

Miscellaneous Insect and Disease Checks

Commission foresters made approximately 253 field checks of insect and disease problems and made recommendations for prevention and control. Other inquiries were handled by telephone, mail, and personal contact.

Insect and Disease Laboratory

During Fiscal Year 2009-2010, the Insect and Disease Laboratory processed 18 samples submitted by SCFC employees and private individuals. Recommendations for control of various pests identified were given where needed. In addition to these samples, 5,726 southern pine beetles and 18,707 clerids were counted in the lab.

Forest Health Surveys

The SCFC entered into agreement with the USFS to evaluate permanent Forest Health plots throughout South Carolina. This was done by the Resource Development Section and reported there. As another part of this program, the Forestry Commission also received additional funding for off-plot activity to survey for and report on other forest insects and diseases.

In conjunction with the spring 20% beetle survey, the entire state was surveyed for defoliation, beaver damage, fire, and apparent annosus root rot damage.

During the aerial survey, the observed damage due to forest tent caterpillars (defoliators) was found across 21,806.1 acres. Beaver damage were estimated at 282.25 acres (acreage is based on 20% survey); fire-caused mortality was observed on 96.75 acres of forestland (acreage is based on 20% survey); annosus root rot was identified on 1,134.5 acres with an estimated value lost of \$23,824.50.

Equipment

The Equipment Section is responsible for development and implementation of statewide programs concerning use, design, and maintenance of specialized forest fire control equipment.

This section is responsible for providing technical assistance and advice to repair shops, developing specifications for fire suppression equipment and motor vehicle fleet, and arranging training for all field mechanics.

The Forestry Commission has eight maintenance facilities. All of the shops were certified by State Fleet Management. The maintenance facility in Newberry was found to have some faults in Material Safety Data Sheets and labor hours reported by the mechanics. These problems were rectified and the shop was certified in early November.

Equipment Purchased

- One 2010 Ford Escape for BMP Coordinator. Funds Used: \$18,000 from BMP program along with \$6258 from Equipment.
- The Equipment Section assisted in creating specifications and soliciting bids for Two Bobcat T-320 loaders with mulching heads for the Longleaf Pine Grant. Two Ford F-350s and Two Equipment Trailers were also purchased through this grant.
- One 200 Gallon Slip-On Firefighting Unit for the Coastal Region
- Ten (10) Pairs of Tow Mirrors for Ford F-350 Supervisor Trucks. These mirrors improved rear visibility on these trucks.

The Forestry Commission prepared and organized equipment for auction. The auction process now takes place exclusively online at www.govdeals.com. The sale of equipment netted the Forestry Commission approximately \$21,000. This money is being used to purchase equipment in FY '11.

Law Enforcement

During FY 2010 the Forestry Commission had 38 sworn officers statewide. Two of these were investigators that focused primarily on complex timber theft, timber fraud, and woods arson cases.

Officers prosecuted 251 fire tickets, 11 litter and environmental cases, 38 violations of state forest regulations, and 59 miscellaneous cases. Total fines collected were \$57,211.50. Fines collected from these cases are retained in the county where the offense occurred.

SCFC Law Enforcement Investigators investigated 119 timber theft / fraud cases which represented a loss of \$342,950.83 to the victims. SCFC collected and returned 55% or \$191,529.63 of that money to the affected landowners.

During the year, 51 arson fires were reported and investigated. Agents arrested 8 individuals for arson who were responsible for a total of 39 fires. Out of these fires two Firemen were arrested for the majority of the fires. Arson is historically hard to prove and this figure represents an impressive 76% arrest rate. During the year, there were 882 fire investigations conducted.

During FY 10 SCFC Law Enforcement Officers saw a decrease in the theft of pine straw. There was also a decrease in the prosecutions associated with this crime. SCFC Officers made 14 prosecutions with total fine collections of \$1,182.00.

FOREST MANAGEMENT

There are 12.9 million acres of commercial forestland in South Carolina. According to 2007 forest inventory data, 88% of South Carolina's forests are privately owned, 67% of private forests are family-owned, and 74% of these owners live on the land. Forest industry owns 1.2 million acres (9%), which is down 39% since 2001 and public agencies control 12% of South Carolina's forests.

The Forest Management Section assists South Carolina citizens with management and development of the forest resources of the state. Programs include woodland management assistance, reforestation assistance, forestry services, forest products utilization and marketing assistance, resource conservation and development, and urban & community forestry. These programs assist owners in growing more timber, aid industries in more efficient utilization of the timber resource, and foster conservation and multiple use of the forest resource. The urban & community forestry program strives to help local government, educational institutions and non-profit organizations develop and enhance the benefits provided by trees and greenspace where we live and work.

In addition to programs designed to assist private landowners and local communities, the Forest Management section also coordinates development and management of over 90,000 acres of forests included in the state forest system. These lands are owned by the Forestry Commission and provide forest based recreation opportunities and serve as examples of the benefits of active forest management.

FOREST MANAGEMENT ASSISTANCE

Professional foresters from the Forestry Commission provide forest management advice and assistance to landowners. The land is examined and a written forest management plan is prepared. Recommendations for management may include such silvicultural practices as forest protection, reforestation, harvesting, prescribed burning, wildlife habitat improvement, and recreation.

This year, 1,414 management plans were prepared for 98,501 acres. Beginning in July of 1999, customer satisfaction surveys were sent to every landowner that received a forestry management plan. In FY 10, 96% of the landowners that responded to the survey indicated that they were satisfied with the management plan they received. Of these landowners, 79% also indicated that they intended to complete most or all of the recommendations in their plan. Where practical, the landowner is referred to consulting or industrial foresters to assist in carrying out management recommendations. This year 42 cases were referred to consulting foresters and 22 were referred to industrial foresters.

COST-SHARE PROGRAMS

Forest Renewal Program (FRP) - State

In 1982 the program was funded for the first time by a \$100,000 state appropriation. This permitted an assessment of \$400,000 from forest industry, and created a \$500,000 Forest Renewal Fund. The state funding was doubled effective July 1, 1996. This increase permitted an assessment of \$800,000 increasing the program to \$1,000,000. Beginning in 2001, the objectives of the Forest Renewal Program were expanded to include providing funds to help match federal grants that provide financial support for the Forest Inventory and Analysis (FIA) program.

Longleaf Restoration Program (LRP) – Federal - ARRA

This landowner incentive program was part of the \$1,742,000 Longleaf Pine Restoration ARRA Grant that was awarded to the South Carolina Forestry Commission in August 2009. This grant was affiliated with an economic recovery (stimulus) package passed by Congress with the stated goal of creating and/or retaining jobs. With this objective in mind, SCFC staff determined that the most expedient method of getting "boots on the ground" was to offer an upgrade to landowners who had applications for longleaf practices under the Forest Renewal Program that were already funded. These landowners were offered the opportunity to receive an incentive

payment of approximately 75% through LRP versus the 40% payment that FRP provides. In addition to these higher cost-share rates for reforestation practices, the agency also provided incentives through LRP for prescribed burning and mid-story control treatments in longleaf pine stands.

Conservation Reserve Program (CRP) - Federal

The Conservation Reserve Program (CRP) began with crop year 1986 and was renewed with the passage of the 2002 Farm Bill. This program provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. CRP reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. CRP is administered by the USDA Farm Service Agency, with the SC Forestry Commission providing technical assistance for forestry practices.

Southern Pine Beetle (SPB) – Federal

The SPB Prevention and Restoration Cost-Share Program (SPB Program) was created in 2006 for non-industrial private forest landowners. It seeks to mitigate future loss from SPB by managing pine density through prevention and restoration practices. These practices ensure that a pine stand will be of merchantable size before the stress of being overly dense develops. Receiving income and maintaining vigorous growth are usually enough incentives for landowners to thin merchantable sized pine stands and, in return, reduce the potential loss from SPB.

**Statewide Accomplishments For All Cost-Share Programs
2009-2010**

Reforestation and Timber Stand Improvement

Program	Number of Landowners	Acres Planted	Prescribe d Burning	TSI Acres	Commercial Thinning	Precommerci al Thinning	Cost Share Payments
FRP	335	9,541	0	2,205	0	0	\$907,976
LRP	71	1,044	2,652	303	0	0	\$266,600
SPB	130	3,411	0	200	0	1,180	\$493,769
CRP	302	5,013	0	0	7,757	0	\$201,110
Totals	1001	19,009	2,652	2,708	7,757	1,180	\$1,869,455

SEEDLING SURVIVAL

Survival checks were made on 10 percent of plantings using a row count or tenth acre plot method for determining survival. An average of all survival checks was used to determine the statewide survival of 85% for loblolly pine plantings. Survival rates for longleaf pine plantings were tabulated separately. Plantings with longleaf seedlings had a survival rate of 48% when bare root stock was used and 79% when containerized stock was used.

Forest Management Assistance 2009-2010

County	Non Cost-Share		Cost-Share		Forest Stewardship	
	Exams	Acres	Exams	Acres	Plans	Acres
Abbeville	9	388	18	1191	4	600
Aiken	23	1504	45	2611	7	778
Allendale	0	0	20	1703	2	175
Anderson	14	371	16	669	7	633
Bamberg	6	324	32	1415	2	321
Barnwell	13	1403	18	931	2	362
Beaufort	1	80	0	0	0	0
Berkeley	12	2046	4	330	7	275
Calhoun	4	202	40	1877	0	0
Charleston	20	826	6	224	3	698
Cherokee	13	462	7	310	1	112
Chester	16	1609	12	549	2	522
Chesterfield	6	910	47	2551	1	247
Clarendon	0	0	28	1545	4	1483
Colleton	5	220	30	1519	2	249
Darlington	0	0	15	554	4	3400
Dillon	0	0	23	669	3	1077
Dorchester	8	865	6	171	0	0
Edgefield	5	200	13	413	0	0
Fairfield	12	1821	11	652	8	1304
Florence	9	342	15	515	7	853
Georgetown	3	77	15	714	1	499
Greenville	9	644	5	249	2	296
Greenwood	8	306	12	582	1	215
Hampton	1	15	24	1441	3	595
Horry	2	26	26	483	5	771
Jasper	4	320	10	673	0	0
Kershaw	3	190	63	2767	4	713
Lancaster	4	467	11	532	0	0
Laurens	5	293	15	737	5	2114
Lee	0	0	15	921	2	227
Lexington	18	1165	32	1057	2	267
Marion	1	2948	8	248	0	0
Marlboro	0	0	12	719	2	456
McCormick	1	181	9	555	0	0
Newberry	7	689	24	737	1	22
Oconee	5	40	4	406	2	151
Orangeburg	34	2767	62	3154	6	684
Pickens	13	673	2	76	2	611
Richland	18	778	16	645	3	566
Saluda	14	674	31	1290	6	541
Spartanburg	5	79	16	535	2	454
Sumter	0	0	17	879	5	776
Union	4	267	6	292	2	460
Williamsburg	8	614	75	3244	6	1578
York	12	895	6	228	5	610
State Totals:	355	27,680	922	43,561	133	25,695

FOREST SERVICES

Through this program the SC Forestry Commission provides assistance to landowners and other state agency lands with afforestation, reforestation, and maximization of production from their woodlands. The landowner is charged the cost of all services performed.

These services were available to landowners during the year:

Firebreak Plowing - performed by Forestry Commission employees using agency equipment for \$140 for the 1st hour and \$85 for each additional hour. In FY 2006, a separate rate was established for firebreaks constructed with a heavy tractor. For FY 2008-09, these rates were set at \$160 for the 1st hour and \$100 for each additional hour.

Prescribed Burning - performed by Forestry Commission employees using agency equipment for \$19 per acre for understory burns and \$30 per acre for site preparation burns. Firebreak plowing costs are not included. The minimum charge for this service was \$400.00.

Prescribed Burning Standby - an agency tractor and employee on standby at burning site for \$80 for the 1st hour and \$305 for each additional hour while landowner performs burning under an approved plan. The minimum charge for this service was \$110.00.

Equipment Rental Program - agency owned tree planters and drum choppers made available to private landowners at rates of \$5 and \$20 per acre respectively. The minimum charges were \$25 and \$100.

Timber Marking - performed by Forestry Commission employees at the rate of \$10 per thousand board feet and \$5 per cord.

Service	Number of Tracts	Units of Measure	Receipts FY 10
Firebreak Plowing	392	916 miles	\$144,948
Prescribed Burning	179	21,953 acres	\$417,481
Prescribed Burning Standby	28	2,780 acres	\$13,740
Equipment Rental	7	57 acres	\$615
Water Bar Construction	3	356 bars	\$9,393
Timber Marking	9	1,900 acres	\$16,421
Totals	618	--	\$602,598

Beginning in July of 1999, a customer satisfaction survey was sent to all landowners that received forestry services. In FY 10, 57% of the surveys were returned and 95% of these landowners indicated that they were satisfied with the services they had received.

FOREST STEWARDSHIP

The Forest Stewardship Program is a cooperative effort among the USDA Forest Service, Forestry Commission, other natural resource agencies and organizations, forest industry, and private forest consultants in South Carolina to encourage the long-term stewardship of non-industrial private forest lands. Landowners are provided technical assistance by having a multiple resource management plan developed for their property addressing their management objectives.

During FY 10, 172 Stewardship Plans were written in South Carolina on 40,020 acres. South Carolina Forestry Commission foresters authored 133 plans covering 25,695 acres. Private Forestry Consultants authored 39 plans covering 12,760 acres.

Six landowners (comprising 3,120 acres) were recognized as Forest Stewards for FY10.

COMMUNITY FORESTRY

The Community Forestry program exists to provide technical, financial and educational assistance to municipal and county governments and others for the purpose of creating, maintaining, and enhancing community forest conservation and management within their jurisdictions; to provide for, coordinate and/or conduct information, education and training regarding community forestry, wildland-urban interface issues, and arboricultural best management practices; and to provide grants to local governments, non-profit organizations, and educational institutions of higher learning to create, enhance and support long-term local and regional community forestry programs. This assistance is accomplished through a variety of ways: direct contact, diverse and cooperative partnerships, and the financial assistance grant program.

Expected results include, but are not limited to: improved air quality; energy conservation through reduced heat island effect in downtown areas; local government recognition and management of the community tree resource; sustained financial support on the local level for community tree management; more professional public tree managers to provide safe walkways, streets and parks; and more public trees planted and maintained to beautify, cool, and clean South Carolina communities. These results occur when a community or county government works toward accomplishing a natural resource inventory and management plan, employs professional urban forest staffing, adopts and implements natural resource policy, and works in partnership with local advocacy organizations.

Community Forestry Financial Assistance Program

The Community Forestry Financial Assistance and Partnership Program is a state program funded with federal-level monies appropriated each year by Congress. These funds are funneled through the US Forest Service to the SC Forestry Commission to administer. Due to a reduction in federal funding in FY10, the Commission was only able to provide \$58,335 in pass-through funds to two different non-profit conservation organizations to assist with urban forestry and arboricultural training and continuing education for public tree managers and other professionals. The accomplishments reported on the following page are a result of previously-funded grant projects for which work was recently completed.

Tree City/Tree Line USA

Sponsored on the national level by the Arbor Day Foundation and others, the Tree City USA program is administered in South Carolina by the SC Forestry Commission. This program seeks to stimulate and promote the management of community trees by recognizing towns and cities which meet the following criteria: (1) establishment of a municipal tree care ordinance, (2) expenditure of at least two dollars per capita on their community forestry program, (3) establishment of a legally constituted tree board or permanent staff to address tree issues, and (4) observance of Arbor Day by a mayoral proclamation and official ceremony. The SC Forestry Commission recognized and awarded 37 municipalities, 1 county and 3 military bases under the Tree City USA program during fiscal year 2010.

The Tree Line USA program, also sponsored by the National Arbor Day Foundation, seeks to stimulate and promote proper utility line clearing and safety techniques of private and public utility companies. In order to qualify as a Tree Line USA, a utility must meet three criteria: (1) perform quality tree care regarding pruning, trenching and tunneling methods; (2) provide opportunities for annual utility line worker training; and (3) sponsor an ongoing community tree planting program to include an Arbor Day celebration and at least one educational mailing to customers. The Forestry Commission recognized the Gaffney Board of Public Works as South Carolina's only Tree Line USA utility for the tenth consecutive year.

Partnership Development and Educational Programs

Through the direct technical assistance of the community forestry staff and implementation of the financial assistance projects, the program strives to develop partnerships with a variety of organizations and units of local government. Often these partnerships result in educational programs regarding the economic, ecological and social value of community forest resources. During FY 10, twelve (12) partnerships were developed and 54 different educational sessions were presented to approximately 1,966 South Carolinians.

Types of Technical Assistance	Program Accomplishments Community Forestry Staff		Program Accomplishments Financial Assist. Grants
Program Development/Expansion	# of Entities	# of Assists	# of grants awarded
Municipal Government	74	229	8
Non-profit / trade organizations	21	86	7
Educational Institutions	9	20	0
County Government	15	35	2
State Government	6	19	2
State Government	<u>42</u>	<u>42</u>	<u>N/A</u>
Others			
TOTAL	167	431	19
Tree City USA's	41		N/A
Public Tree Ordinances Developed	N/A		2 public tree ordinances written under 2 grant projects
Public Trees Inventoried	N/A		15,167 trees inventoried under 7 grant projects
Public Tree Management Plans	N/A		4 plans developed by 4 grantees
Public Trees Planted	N/A		251 trees planted under 8 grant projects
Professional Certification	N/A		4 people certified as ISA Arborists under 2 grant projects

Partnership Development	N/A			12 partnerships developed under 5 grantees		
Volunteers	N/A			60 people volunteered a total of 889 hours under 5 grant projects		
Public Information/Education	<u>Adults</u>	<u>Youth</u>	<u>Totals</u>	<u>Adults</u>	<u>Youth</u>	<u>Totals</u>
# Programs						
# People	44	3	47	7	0	7
# Seat hours	1,492	96	1,588	378	0	378
	1,980	158	2,314	3,210	0	3,210

HARBISON STATE FOREST

Harbison State Forest, located approximately 9 miles from downtown Columbia, encompasses 2,176 acres. The Forest was purchased in 1945 and became the site of the agency headquarters in 1963. Following the adoption of a Master Plan in 1981, the Forest began to be developed as an Educational State Forest. Recreational use grew dramatically in the early 90's with Harbison soon gaining the reputation as a mountain biking mecca for the area.

Receipts

Parking fees were initiated in March 2004 to provide more equity with regard to user fees. Since 1997, bicyclists have been required to purchase daily or annual permits while hikers, runners, picnickers, and other forest users were not required to pay fees. Starting in the fiscal year 2009-2010 users were required to purchase a parking permit only.

Receipts for Operating Budget

<u>Activity</u>	<u>Receipts</u>
Timber Sales	\$112,015.07
Shelter Rentals	\$1,485.00
Conference Room Rentals	\$10,840.00
Annual Permits	\$39,390.00
Daily Permits	\$16,372.72
Special Use Permits	\$750.00
Campsite Rental	\$1,240.00
Trail Donations	\$474.88
Total	\$182,567.67

Note: 25% of all receipts are paid to Richland County School System. This amounted to \$42,441.95 for the 2009-2010 fiscal year. (Donations and rental income are not included when calculating the total to be dispersed to the school system.)

Silvicultural Practices

Recovery of the Forest following the 2002 southern pine beetle outbreak continues to take place at a satisfactory rate. Most of the areas that were understocked followed salvage operations now contain an adequate number of natural seedlings, most of which are loblolly pine. Two timber harvests occurred in the 2009-2010 fiscal year on a total of 124 acres. Five prescribed burns were conducted in this year for a total of approximately 24.5 acres. Included in these burns was a 13-acre prescribed burn which was conducted behind the South Carolina Forestry Commission Headquarters and a .75 acre prescribed burn behind the Educational Center. These burns will serve as demonstration areas.

Forest Protection

No wildfires occurred on Harbison State Forest during this fiscal year. Individual tree mortality returned to a normal level following the 2002 southern pine beetle outbreak. Trees that were considered hazardous to forest visitors and/or to buildings were felled as workload allowed. (Many of these trees were removed during chainsaw training conducted by the Forestry Commission's Training Section.)

Recreation/Education

Several events were held on the trails at Harbison during the 2009-2010 fiscal year. The Friends of Harbison State Forest hosted a foot and bike race with an estimated 150 participants. The Friends of Harbison State Forest also held their forth annual "Take a Kid Mountain Biking" day. This event helped raise awareness of the sport to a younger generation and increased awareness of the state forest. Harbison was also the site for an Adventure Race and a 12K foot race.

In addition to these events, numerous trail work days were conducted during the 2009-2010 fiscal year. These events included improving the trails by pruning of overhanging branches and brush and the rehabilitation of wet areas and closed trails. Friends of the Forest members continue to provide leadership for these work days, enabling Harbison staff to perform other functions during these weekend events. The Friends of the Forest, with the help of a Richland County Conservation Grant, constructed a new kiosk in the main parking lot

The Friends of Harbison State Forest continue to meet on a monthly basis to plan events and promote the Forest. They have received recognition from the Secretary of State as a non-profit group and have achieved 501(c)3 status from the IRS. The mission of the Friends group is to "preserve and promote the recreational and educational aspects of this urban forest resource." Current membership of this group is estimated at 75 individuals.

Boy Scouts continue to provide assistance to Harbison through Eagle Scout projects and Cub Scout activities. Two Eagle Scout projects were completed this fiscal year which consisted of improving two bridges on the Eagle Trail and a beautification project for the main parking lot. Numerous educational programs were conducted for Scouts and others at Harbison State Forest. (See the Environmental Education section of this report for details.)

Scouts and other organized groups continue to use the four primitive camping facilities at Harbison. Harbison's camping facilities were used by 53 groups this fiscal year for a total of 1,062 users.

The canoe landing at Harbison State Forest provides access to the Broad River. During the 2009-2010 fiscal year, 20 groups used this facility for a total of 73 paddlers. Usage of the Canoe Landing appears to be recovering from the diminished use due to the closing of the downriver takeout at the Riverside Golf Center.

Wildlife Management

Five wildlife viewing areas totaling 2 ½ acres are maintained each year. These areas are planted in cover crops such as wheat, rye, and clover to facilitate the viewing of wildlife by Forest visitors.

Rare, Threatened, and Endangered Species Management

No threatened or endangered species are known to occur on Harbison State Forest. The two vernal ponds that were established in May 2004 have become well-established. These ½-acre wetlands provide habitat for amphibians, reptiles, and many species of insects and are favorite stops on nature hikes by educational groups and other Forest visitors.

Research

No research projects were conducted this year on Harbison State Forest

MANCHESTER STATE FOREST

Manchester State Forest, located in Sumter County and Clarendon County, is currently comprised of approximately 29,070 acres. From 1939 to 1955, Manchester was leased by the State of South Carolina from the federal government and managed by the South Carolina Forestry Commission. The State received title to the property on June 28, 1955.

<u>Receipts</u>	
<u>Activity</u>	<u>Receipts</u>
Timber Sales	924,537.91
Pine Straw Sales	60,498.00
Land Lease Payments	30,716.80
Wildlife Management Area	77,154.99
Trail and Special Use Permits	31,560.00
Total	\$ 1,124,467.70

Note: 25% of all forest receipts are paid to Sumter and Clarendon Counties for a total of \$281,116.92.

Timber sales were concentrated on thinnings in overstocked stands and conversion of older slash pine stands to longleaf plantations according to the planning model.

Silvicultural Practices

Two thousand seven hundred ninety-one and four tenths (2,791.4) acres were prescribed burned during the fiscal year for wildlife, hazard reduction, hardwood control, aesthetic, and site preparation purposes. Four hundred twenty-eight (428) acres were sold for final harvest cuts and One thousand seventy-seven (1,077) acres were sold for improvement cuts (thinnings).

The following species and number of seedlings were planted during FY10:

	<u>Acres</u>
Containerized longleaf pine	878
Bareroot longleaf pine	343

Sales of pinestraw covered three hundred forty-two (342) acres.

Forest Protection

One wildfire occurred. Manchester personnel also assisted the local fire departments with two additional fires which were adjacent to the Forest.

Recreation/Education

Hunting, fishing, horseback riding, motorcycle/ATV riding, mountain biking, and use of the rifle/pistol range continue to be favorite activities. Manchester personnel also participated in all three sessions of Wood Magic.

Three (3) special-use permits were issued for organized events with approximately 635 paid participants.

An organized clean-up comprised of 45 volunteers was held on Manchester which resulted in 39.73 tons of trash being picked up.

Those participating included City of Hartsville personnel, Sumter County Public Works, Manchester State Forest personnel, and hunters from various parts of the state, Shaw Air Force Base, and various volunteers from the local region.

Wildlife Management

Approximately 26,000 acres of the forest are presently included in the Wildlife Management Area Program through a cooperative agreement between the Department of Natural Resources (DNR), and the South Carolina Forestry Commission. DNR provided technical assistance with game food plot establishment monitoring and dove fields. They also agreed to plant the 150 acre dove field on the Oak Lea Tract. The draw hunts at Oak Lea also increased in popularity as evidenced by the increased number of applications. Five (5) public dove fields were opened on Manchester and Oak Lea with an opening day participation of four hundred twenty-nine (429) hunters. Two thousand one hundred thirty-one (2,131) doves were harvested on opening day with a total of 9,515 shots being fired.

Manchester also hosted its annual youth dove hunt on the Bland Tract, which was limited to 35 youths who were required to register in advance. One hundred thirty-two (132) doves were harvested during this event with 1,514 shots being fired.

During the year DNR also provided technical assistance with deer herd dynamics, tracking various game and non-game species including quail, turkey, and fox squirrels and pond management. DNR also assisted in law enforcement on the forest through interagency cooperation.

Planting and maintenance was conducted on 587 acres of wildlife areas. Corn, popcorn, Egyptian wheat, sunflowers, sorghum-brown top-millet-benne mix, wheat, rye, clover, vetch and bicolor were utilized to diversify the food supply. Several of the plantings were donated by the Department of Natural Resources and planted by Manchester and DNR personnel.

Rare, Threatened, and Endangered Species Management

Manchester currently maintains six (6) clusters of Red Cockaded Woodpecker. Colony sites continue to be monitored along with scouting for new cavity and start trees in cooperation with biologists from the neighboring Poinsett Gunnery Range (USAF). An agreement was reached with the USAF that would allow them to monitor and work on the colony sites only with prior agreement with the Manchester State Forest Director. A meeting with DNR, Poinsett Weapons Range, and USF&W Service personnel resulting in an emergency recovery plan for the RCW.

Research

Manchester continues to cooperate with the SCFC Nursery Section by providing eight (8) sites for clone banks, seed orchards, and progeny tests.

Infrastructure

Maintenance continued on approximately 100 miles of unimproved dirt roads on Manchester including grading and mowing.

WEE TEE STATE FOREST

Wee Tee State Forest located on the Santee River in lower Williamsburg and Georgetown Counties was acquired by the South Carolina Forestry Commission in November of 2003 through the partnership of eight participants. These partners included the South Carolina Forestry Commission, South Carolina Department of Natural Resources, The Conservation Fund, US Forest Service, Forest Legacy Program, U. S. Fish and Wildlife, North American Wetlands Conservation Act Grant, Ducks Unlimited, National Wild Turkey Federation, and Anheuser-Bush. Wee Tee contains 12,394 acres of which 770 acres is comprised of planted loblolly pine plantations and upland pine-hardwood types and the remaining 11,624 acres is comprised of bottomland hardwood types with the associated oxbow lakes and creeks. Being in the Santee River Focus Area of Ducks Unlimited's Lowcountry Initiative, it is a very significant, unfragmented bottomland hardwood forest. Its significance lies in its watershed and water supply protection, habitat for wildlife and a number of threatened and endangered species and the opportunities it provides for recreation, forest practice demonstration, and education.

Receipts

For fiscal year 2009-10, \$49,331.94 was collected on Wee Tee State Forest as payment for SCDNR's WMA program and two timber sales for \$83,596.46 from which \$33,232.10 was paid to Williamsburg and Georgetown counties.

Silvicultural Practices

Eighty (80) acres of bottomland hardwood were sold for silvicultural harvest for regeneration purposes.

A thinning of eighty-two (82) acres was completed during the fiscal year.

Recreation/Education

Fishing in the Wee Tee Lakes was opened in April, 2004 on Wednesdays and Saturdays from sunup to sundown.

A hunting season was planned with SCDNR and was implemented starting in September 2004. Harvest data was not collected, nor required; however, hunters indicate successful seasons for both deer and turkey.

Plans have been initiated in cooperation with the Palmetto Conservation Foundation to allow canoeing and kayaking in the Wee Tee Lakes in conjunction with the Berkeley County Blueways with an information center being opened in nearby St. Stephens.

Forest Protection

Gates have been constructed and placed on all known entrances into Wee Tee to control access for the protection of the property and infrastructure.

Wildlife Management

An agreement was reached in 2004-05 with SCDNR to place Wee Tee under the WMA program according to a pre-closing cooperative arrangement. Hunting and fishing schedules were agreed upon and implemented.

Infrastructure

Manchester State Forest personnel made road improvements to approximately 45 miles of roads on Wee Tee during 2009-2010. Improvements included grading, mowing, and drainage improvements due to existing beaver dams, culvert replacements, and bridge replacements.

Wee Tee State Forest has one permanent employee with primary responsibilities to the wildfire efforts mainly in Williamsburg and Georgetown Counties, and secondary maintenance responsibilities to roads, buildings, and other infrastructure at Wee Tee.

SAND HILLS STATE FOREST

Sand Hills State Forest (SHSF) covers approximately 46,000 acres with 45,000 acres in Chesterfield County and 1,000 acres in Darlington County. The forest was operated under a use agreement with the federal government from 1939 until 1991. In July of 1991, title to Sand Hills State Forest was transferred to the South Carolina Forestry Commission.

Receipts

Since 1967, Sand Hills has been totally self-supporting.

RECEIPTS FOR SAND HILLS OPERATING BUDGET

Activity	FY 10
Timber & Stump Sales	\$ 1,619,773.68
Pinestraw Sales	\$ 815,273.09
WMA Payment	\$ 36,041.94
Rent State Owned Property	\$ 3,363.25
CRP Payment	\$ 390.00
Rent Equipment	\$ 640.00
User Fees	\$ 6,406.25
Prior Year Refund	\$ 3,278.32
Donation	\$ 1.23
	\$ 2,485,167.76

Note: 25% of \$2,477,884.96 was paid to Chesterfield and Darlington County School Systems. Donations, prior year refunds, and rental income categories are not included when calculating the total to be dispersed to the school systems.

COUNTY PAYMENT

County	FY 10
Chesterfield	\$ 604,603.93
Darlington	\$ 14,867.31
Total	\$ 619,471.24

Silvicultural Practices

No seedlings were planted on Sand Hills State Forest during the 2009/2010 fiscal year.

In 1999, Sand Hills started a pinestraw enhancement program. Under this program, an individual from the public can enter into a multi-year contract with the Forestry Commission to rid longleaf pine stands of scrub oaks for pine straw production. The individual agrees to eradicate 90% of all hardwoods on a tract of land using herbicides. In exchange, that person may harvest all the pinestraw that falls during the contract period. When the contract expires, the acreage becomes part of SHSF's quality straw production program. The straw from these areas are offered for sale on a lump sum sealed bid basis. Currently there are 10 individuals working on approximately 6,554 acres of land.

To date, 21,000 acres of longleaf stands have been cleaned up in the enhancement program and have reverted to SHSF to sell during bid sales.

In FY 10 Sand Hills State Forest sold approximately 4,801 acres of pine straw for \$815,273.09.

PINE STRAW ENHANCEMENT PROGRAM		
Fiscal Year	Contracts	Acres
2006	26	1784
2007	7	918
2008	56	4644
2009	46	2552
2010	9	1084
TOTAL	144	10,982

FY 2010 saw an increase in timber sales over previous years with sales covering 2,024 acres for a total of \$1,613,972.00.

Product	Volume	Dollar Amount
Pine Pulpwood	17,869.5	\$ 140,736.33
Pine CNS	10,010.4	\$ 167,234.26
Pine Sawlogs	42,125.2	\$ 1,202,289.02
Hardwood Pulpwood	4,918.5	\$ 39,836.49
Hardwood Sawlogs	3,724.7	\$ 63,875.90

As a result of community meetings and increased pine straw activity at Sand Hills State Forest, a vehicle registration system was implemented to ensure that licensed, insured vehicles were operating on the Forest. The registration stickers provide a visible means to those patrolling the Forest that the participant has complied with the program. Red registration stickers are used for a 2-week or 60-day pine straw sale, yellow registration stickers are used for the pine straw enhancement program and the green registration stickers are used for state forest users that want to access the "authorized vehicles only" truck trails. The majority of the green registration stickers are issued to hunters.

VEHICLE REGISTRATION STICKERS			
	Restricted Trails	Pine Straw Sale	Enhancement
Fiscal Year	Green Stickers	Red Stickers	Yellow Stickers
2006	228	93	68
2007	237	134	73
2008	226	127	83
2009	284	209	264
2010	252	243	67
TOTAL	1227	806	555

Forest Protection

A total of 4,063 acres were prescribed burned for wildlife habitat enhancement, hardwood control, and fuel reduction.

Sand Hills State Forest had three wildfires that burned 84 acres in FY 10.

Recreation

Recreational use of the Forest continues to increase. Hunting, fishing, hiking, bird watching, and camping continue to be favorite activities. Equestrian use on SHSF remains low due to the free riding that is offered at H. Cooper Black Recreational Area under the management of SCPRT.

Geo-caching is a new activity that is becoming popular at Sand Hills. Geo-caching is a game of hiding and seeking treasures by entering the location using a GPS system and then putting the location online for individuals to find the geo-cache. There are 12 geo-caches on Sand Hills, 144 within 25 miles of Sand Hills and over 1,138,124 geo-caches worldwide.

During FY 10 SHSF personnel built a 16' by 16' wooden fishing pier on Middendorf Pond.

At Sugarloaf Mountain, there are seven primitive camping sites for family camping and eight primitive equestrian campsites. Sand Hills personnel booked 135 reservations for these sites this year. An estimated 3,032 visitors used the campsites and trails. FY 10 fees are from \$15 per site for sites with shelters and \$10 per site without shelters. Sand Hills received \$3,363.25 in revenue from camping.

SUMMARY OF SAND HILLS RESERVATIONS		
Fiscal Year	Reservations	Visitors
2006	167	3,738
2007	132	3,196
2008	150	3,122
2009	119	2,426
2010	135	3,032
TOTAL	703	15,514

*Number of Visitors does not include day users nor does it include any visitors from any other user group (hunters, fisherman, bird watchers, pine straw workers, etc.).

Trail use permits for horseback riding decreased from 393 in FY 2009 to 275 permits in FY 2010. One hundred forty-seven annual/daily permits were sold online. One hundred twenty-eight permits were purchased through the drop box outside the SHSF office. Revenue from trail use permits totaled \$6,315.00. The permit holders came from South Carolina, North Carolina, Georgia, Tennessee, Florida, and Canada.

Free-use permits are issued for any activity at Sand Hills State Forest that does not have a fee. SHSF personnel issued 50 free-use permits this year. Nineteen (19) of the permits were for raking pine straw for personal use, thirty (30) were for gathering firewood, and one (1) was for scrap metal.

SUMMARY OF SAND HILLS PERMIT		
Year	Trail-Use Permits	Free-Use Permits
FY 2006	1,147	43
FY 2007	504	39
FY 2008	358	28
FY 2009	393	46
FY 2010	275	50
Total	2,677	206

Sugarloaf Mountain shelters accommodated Boy Scout troops, church events, family reunions, birthdays, retreats and a wedding. Sugarloaf Mountain camping areas also accommodated a large number of hunters that hunted on SHSF and Carolina Sandhills National Wildlife Refuge.

Two special-use permits were issued for organized events.

1. Sand Blast Rally on February 6, 2010: 64 competitive entries with 88 people racing, 18 cars, 41 motorcycles, 100 volunteers, and \$940 in fees.
2. Sand Hills Stampede Endurance Ride on November 7, 2009: 95 Riders, volunteers and \$475 in fees.

These events bring many visitors to Sand Hills State Forest and surrounding areas. They have an estimated economic impact of \$100,000 for the area. The local involvement and sponsorship have increased each year that these events have been held.

The SHSF Recreational Advisory Committee meets quarterly to discuss plans and projects that are taking place within the different areas of recreation that are offered on the state forest.

Education

SHSF hosted classes from the following schools for educational field trips: Governor's School of Science and Mathematics and Francis Marion University. SHSF personnel visited and presented programs to the following schools: Spalding Middle School (6th-8th Grade)-75 students, Petersburg Elementary School (kindergarten)-30 students. In addition to visiting classrooms, SHSF personnel also spoke to several civic clubs as well as participated in the Wood Magic Forest Fair.

Wildlife Management

Approximately 40,000 acres of the Forest is included in the Wildlife Management Area Program. This is a cooperative agreement between the Department of Natural Resources (DNR) and the SC Forestry Commission. SHSF has two public dove fields. The Wilkes Chapel field is 57 acres in size and is planted in corn, sunflowers, and lespedeza. The Davis field is 40 acres in size and is planted in corn, sunflowers, and lespedeza. Both the Wilkes Chapel field and the Davis field were recognized by the SC Sportsman Magazine as being in the top five for public dove fields in the state for the number of birds harvested per hunter.

Eighty-one acres (110 plots) were planted as wildlife food plots. These plots were planted in wheat, corn, sunflower, spring game mix, dove mix, dove proso, wild turkey mix, quail mix, sorghum, and bicolor. All plantings were fertilized and limed at the recommended rates. All manageable bicolor patches in Compartments 11, 12, 18 & 19 were bush hogged, fertilized, and limed.

SHSF continues to conduct surveys for DNR. Fox squirrel, turkey and quail were surveyed to track population trends.

Rare, Threatened and Endangered Species Management

Population Trends: There are currently 75 managed Red-Cockaded Woodpecker clusters on SHSF. During Fiscal year 2010, 68 clusters were active with one new cluster being found in an area being marked for harvest. Of those 68 active groups, 65 can be considered potential breeding groups.

Sixty-four nesting attempts were made by 54 groups in 2010; 46 of these attempts fledging offspring.

Management Implications: In FY 2009-2010, 17 inserts were installed to bring five clusters up to recovery standard. Following a vigorous recruitment program is likely to result in greater increases over the coming years. Recruitment clusters are to be provided at a rate of 10% of the group number per year. A new group was found this year in Compartment 20 and the single bird in Compartment 11 from last year has found a mate, but did not initiate nesting this year. At least two cavities will have to be placed in the new cluster and possibly more installed to turn on recruitment areas to aid in population expansion.

Law Enforcement

In FY 10 law enforcement personnel at Sand Hills opened 25 cases with a total of 39 separate charges. Of these charges, 75% were Rules & Regulations of the Commission or Wildlife Management Area Abuse. FY 10 saw little to no pine straw theft on Sand Hills. This accomplishment is due in part to greater officer presence and increased resource awareness. In FY 11 law enforcement personnel will focus on after hours patrolling of Sand Hills with a continued emphasis on forestry and wildlife violations.

Research

A longleaf pine natural regeneration research project in conjunction with the US Forest Service has been in effect for 25 years and is still ongoing.

POE CREEK STATE FOREST

Poe Creek State Forest is located in Pickens County adjacent to SC Highway 11 and contains 1,806 acres. The property was purchased from Crescent Resources, Inc. on April 6, 1999. Approximately 800 acres is under forest management with 610 acres of planted pine and 190 acres that have been clearcut and allowed to regenerate naturally to native hardwood species. The remaining 1,006 acres are in natural upland hardwood type and a mixture of white pine and hardwoods. The steep terrain in this area limits the forest management activities that can be implemented.

The Piedmont Forestry Center, located 5 miles north of Salem in Oconee County, encompasses 705 acres. It includes a conference center, picnic shelter, and two houses that are available for rental groups. The timber on this property is managed along with that on Poe Creek.

<u>Receipts</u>	
<u>Activity</u>	<u>Receipts</u>
Timber Sales	\$0.00
Wildlife Management Area (WMA) payment	\$16,464.00
Rental state property	\$0.00
Cabin / conference center rentals	\$5,925.00
Total	\$ 22,389.00

Note: 25% of all forest receipts are paid to Pickens and Oconee Counties for a total of \$4,187.00.

Silvicultural Practices

No timber harvesting occurred on Poe Creek State Forest or on the Piedmont Forestry Center during FY10. Two prescribed burns were conducted during the past year on the Piedmont Forestry Center property for a total of 12 acres. These burns were designed to control hardwoods, reduce the risk of wildfire, and improve the aesthetics of three loblolly pine plantations and one white pine plantation.

Recreation/Education

Use during FY10 was heavy, with numerous individuals and groups taking advantage of this beautiful facility. Over 330 scouts and 900 high school and middle school students utilized the facilities in differing capacities.

Forest Protection

Harvesting on Poe Creek and on the Piedmont Forestry Center has reduced density in overstocked loblolly pine plantations. This harvesting has improved forest health and reduced the hazard of wildfire and infestation by bark beetles.

Wildlife Management

The SC Forestry Commission and the Department of Natural Resources cooperate on the planting and management of a 40-acre dove field at the Piedmont Forestry Center. During FY10, 14 food plots were maintained to improve the wildlife habitat on Poe Creek. Poe Creek State Forest and Piedmont Forestry Center are both in DNR's Wildlife Management Area program and are open to public hunting.

Rare, Threatened, and Endangered Species Management

Poe Creek State Forest continues to provide habitat for several populations of federally endangered plants. These areas are being protected from human encroachment.

The Cheohee Valley stream reclamation project was completed during FY10.

Infrastructure

Road access at both the Piedmont Forestry Center and at Poe Creek State Forest was maintained during FY10 through mowing of road shoulders and grading where needed. The south end of the pole barn was renovated to provide protective cover for the new Type 6 pumper that the agency acquired.

STATE LANDS MANAGEMENT PROGRAM

The State Lands Forest Management Program was created to provide professional forest management assistance to South Carolina state agencies that own timberlands. During fiscal year 2009-2010, the state lands coordinator provided assistance to five state agencies. The agencies and facilities were as follows:

SC Department of Corrections

Wateree River Correctional Institution
Ridgeland Correctional Institute

SC Department of Natural Resources

Lewis Ocean Bay Heritage Preserve
Webb Wildlife Center
Mason Wildlife Preserve
Aiken Gopher Tortoise Heritage Preserve
Belfast Wildlife Management Area
Marsh Heritage Preserve/WMA
McBee WMA
Campbells Crossroads Wildlife Management Area
Herbert Kirsh Wildlife Conservation Area
Palachucola Wildlife Management Area
South Bluff Heritage Preserve
Ashmore Heritage Preserve
Long Branch Bay Heritage Preserve
Landsford Canal Forest Legacy Area
Great Pee Dee River Heritage Preserve

SC State Park Service

Cheraw State Park
Aiken State Park

SC Department of Transportation

I-95 median

John Da La Howe School

Timber Revenue

There was direct involvement consisting of cruising, marking, and administering sales of timber on nine state-owned tracts consisting of approximately 1,900 acres. These sales generated approximately \$1,100,000 for their respective agencies.

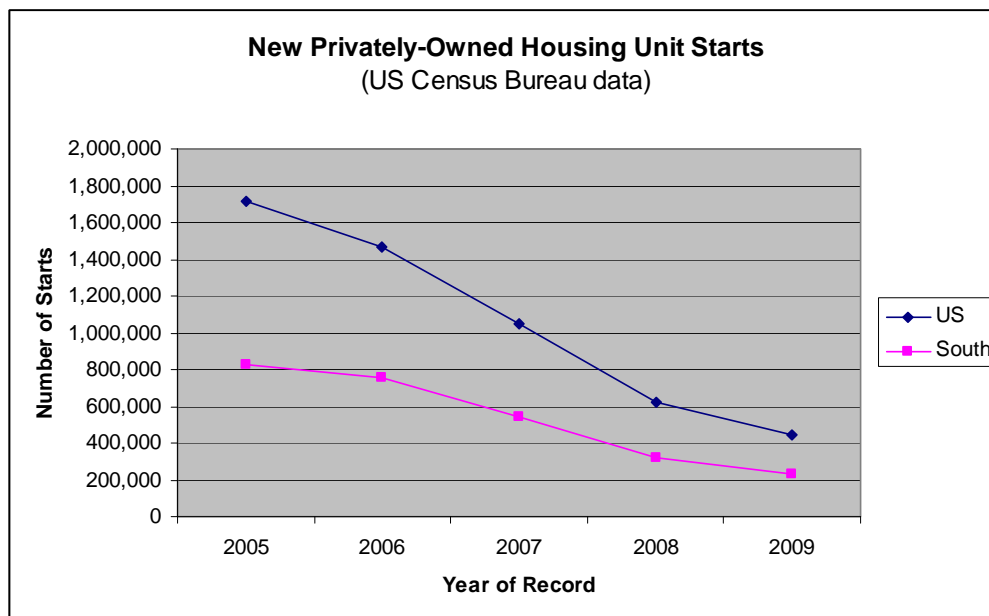
Fees collected for timber marking and cruising conducted on state-owned lands totaled \$26,744 with a total of \$16,421 being allocated to the regions and \$10,323 being retained in the state lands program budget.

RESOURCE DEVELOPMENT DIVISION

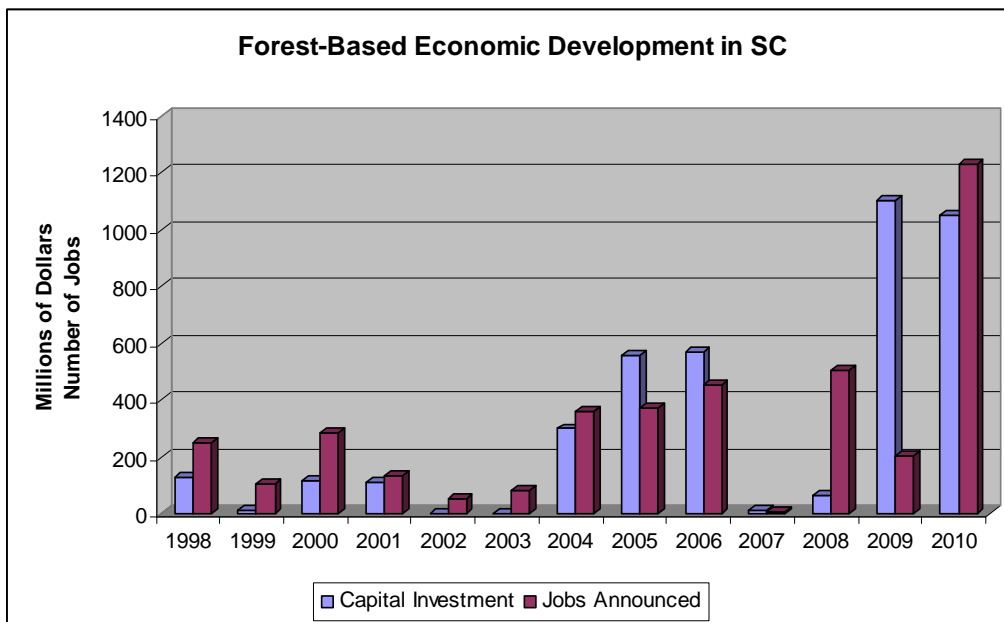
BUSINESS DEVELOPMENT

In an effort to lead forest industry out of the recent recession, the SC Forestry Commission and the SC Forestry Association initiated the 20/15 campaign. Just prior to the recession, studies showed forestry's overall economic impact to the state's economy to be \$17.4 billion. The 20/15 campaign is intended to grow forest industry's economic impact from \$17.4 billion to \$20 billion by 2015. An initial conference of economic development and forest industry leaders was held in October, 2009 to determine the key issues to be addressed in the campaign. A 20/15 project description was drafted and a follow-up conference was held in June, 2010 to form the 6 task force committees that would develop recommendations to address the key issues.

While the recession ended in mid-2009, the economic recovery for forest industry has been tepid for much of the past year. Global markets for wood and paper products recovered faster than domestic markets. The US housing industry showed little sign of recovery with new privately-owned housing starts continuing to decline through the end of 2009 for the US and the South. The federal Biomass Crop Assistance Program (BCAP) provided some financial incentives for the production of woody biomass, but it also produced a temporary disruption to wood markets until it was discontinued for redesign.



FY 2010 was the second consecutive year with over \$1 billion in announced new capital investment by forest industry in South Carolina. Eleven individual projects were announced this year totaling \$1.052 billion in investment and 1,228 new jobs. First Quality announced a new sanitary tissue plant for Anderson County. Their capital investment will exceed \$1 billion and they will employ around 1,000 South Carolina residents. The other projects included renovations to an existing IP plant in Richland County (\$25 million), announced construction of ArborGen's new headquarters in the Lowcountry (\$14 million), Greyne Custom Wood's hardwood flooring plant in Lancaster County (\$5 million), expansion of Chesterfield's Devon Office Furniture, and construction of the Truss Company's plant in Williamsburg County (\$1.25 million). Several biomass-related businesses were announced this year by Sims Bark, Carolina-Pacific, Champion Wood Pellets, Elite Equine, and Agri-Tech Producers.



During the 2010 fiscal year, the SCFC Resource Development Division actively participated in 25 economic development projects. The majority of the active projects involved utilization of biomass feedstock for the production of pellets, electrical power generation, or transportation fuels. Division staff represented the agency and the forestry community through 19 statewide and regional economic development organizations. Finally, 189 individual business assists were made to address single-issue requests.

FOREST INVENTORY & ANALYSIS

The Forest Inventory and Analysis (FIA) program is a cooperative program with the US Forest Service – Southern Research Station to collect forest inventory and forest health monitoring data from a network of permanent sample plots. Funding for the program is provided through a 75% federal grant and a 25% state match of the federal grant funds. Additional funding is supplied by state funds. There are 3,452 total forest inventory plots located in South Carolina. Plots are sampled in 20% increments of the total, referred to as panels. Plots are measured for growth projections, mortality and harvest assessments, and land-use classification. In addition, FIA provides information about South Carolina's forest resources including forest acreage, timber quality, timber volume, timber growth, forage, water, and recreation. This network of plot data collection is referred to as the Phase 2 portion of FIA field data collection. The information provided by FIA Phase 2 allows the evaluation of both quantity and quality of these important resources. The US Forest Service furnishes data analysis and reporting for this program.

A subset of the FIA plots are selected to provide data on forest health, referred to as the Phase 3 portion of FIA field data collection. A total of 204 sample plots are located in South Carolina. Each year, during the summer, 20% of these plots, referred to as panels, are measured to provide forest health data, such as, soil chemistry, tree health, tree carbon fixation, tree nutrient storage, and potential for tree survival and reproduction. Phase 3 data provides a quantitative assessment of current tree conditions and provides an integrated measure of site conditions, stand density and influence of external stresses. In addition, bioindicator sample plots are taken to detect the presence of ozone pollution. Ozone detection sample plots are not a part of the Phase 2 and Phase 3 sample grid, but are on a separate polygon grid system across the state.

Currently, three full-time inventory crews, consisting of two employees each, are stationed throughout the state with field offices in Newberry, Florence, and Walterboro. The program coordinator is stationed in Columbia. All crewmembers are required to exceed a minimal accuracy average of 87% for all inventory plots. US Forest Service personnel conduct quality assurance and quality control checks to insure the accuracy of the data collected by Forestry Commission field crews. During FY 2009-2010, the average accuracy for all crewmembers was 94.97% with each crewmember exceeding the 87% yearly average required by the US Forest Service – Southern Research Station.

During FY 2009-2010, field crews completed one panel of plots that began in FY 2008-2009 and began the next panel. For the fiscal year a total of 647 Phase 2 and Phase 3 sample plots were completed. The US Forest Service – Southern Research Station completed 76 plots, consisting of 50 nonforest plots identified in the office and not sent to the SCFC field crews, and 26 plots that were classified as census water (bodies of water 4.5 acres in size or linear water features \geq 200 feet in width). The FIA program completed data collection on one panel and has completed 58% of the fourth panel of data collection. The FIA program completed 39 product utilization studies on active logging operations across the state to develop factors for logging residues, logging damage, and utilization of the unmerchantable portion of harvested trees. The FIA program collected Timber Product Output (TPO) data on a total

of 64 primary wood-producing mills across the state. Of the mills surveyed, 6 new mills began operations since the 2007 survey and 7 mills closed operations. The TPO survey collects product output data on all primary wood producing mills in the state.

The Forestry Commission FIA program is currently 71% complete with the 10th inventory of the state through Fiscal Year 2010 under the National FIA plot design. Of the 13 southern states, South Carolina was the first state to complete the 8th inventory (2001) and the 9th inventory (2006). Subsequently, South Carolina is the first state in the Southern Region to initiate the 10th inventory. The SCFC FIA program is on schedule to complete the 10th inventory measurements in five years, with December 2011 as a target date for completion.

NURSERY AND TREE IMPROVEMENT

The South Carolina Forestry Commission operates two Nursery and Tree Improvement (N&TI) facilities: Taylor Nursery in Edgefield County and Niederhof Forestry Center in Jasper County. The goal of the N&TI Program is to provide landowners with the highest-quality seed and seedlings available for timber production, wildlife habitat improvement, Christmas tree production, and restoration of valuable forested ecosystems.

TAYLOR NURSERY

Taylor Nursery, located one mile east of Trenton, SC in Edgefield County, produces bare-root and containerized seedlings for South Carolina landowners. Originally named Ridge Nursery when built in 1958, the facility was renamed Taylor Nursery in 1981 when the main office complex was rebuilt following a fire. The new name was in honor of A. Brandon Taylor Jr., an Upstate industrial leader in wood treatment, who served as a Commissioner from 1961-1982 and Commission Chairman from 1975-1981. The nursery property, including office complex, roads, & irrigation pond, consists of 345 acres. 106 acres are under irrigation and used for seedling production.

The SCFC conducts a nursery survey annually to determine the number of seedlings planted in South Carolina. During FY 2009-2010, 40,530,426 pines and 1,018,919 hardwood and other seedlings were planted in South Carolina for a total of 41,549,345 seedlings from all nursery sources. This number is 16% lower than the 49,320,517 seedlings reported planted in FY 2007-2008. The number of seedlings planted in South Carolina has declined 60% since FY 1999-2000 due to fewer acres of final harvest, lower timber stumpage prices and a slowdown in government cost-share funding.

Taylor Nursery distributed 3,181,930 pines and 581,949 hardwood and other seedlings in FY 2009-2010 for a total of 3,763,879 seedlings total. Of this total, 890 seedlings were sold out of state. The total amount distributed represents 99% of the total number of bareroot and containerized seedlings grown at Taylor Nursery. The SCFC sold 9.1% of the seedlings distributed in South Carolina this year from all public and private sources. Taylor Nursery is one of the primary producers of hardwood and longleaf pine seedlings in the state. High demand for containerized longleaf led nursery staff to expand capacity to grow over 2 million seedlings, depending on germination rates.

In past years the SCFC has surveyed at least a 10% sample of seedling customers to determine general satisfaction with our seedlings and to target areas for improvement. This year the survey was e-mailed to all customers who supplied us with an e-mail address. Of the 256 surveys e-mailed out, 134 (52%) customers responded. The 2010 survey indicated that 95% of our customers were satisfied with our seedling quality and service. Of the customers who had a problem with their seedling order, 80% of the customers were satisfied with our response. Of the customer comments on returned survey forms, 70% of the comments were complimentary of the nursery program.

Taylor Nursery keeps up-to-date with technology through association with the Auburn University Forest Nursery Management Cooperative, the Southern Forest Nursery Association and the Longleaf Alliance. Recent research studies conducted at Taylor Nursery include a herbicide toleration study to improve chemical control of hard-to-control weeds such as spurge, nut sedge and Poor-Joe.

NIEDERHOF FORESTRY CENTER

Niederhof Forestry Center (NFC) is located on a 1,593-acre tract of land that the SCFC purchased on December 1, 1983. Originally part of the Hoover Plantation, a 3,950-acre plantation north of Tillman, SC, Niederhof was acquired to establish second-generation seed orchards and to provide areas for future advanced-generation orchards. NFC was located in an area of the state that is well known for good seed production and minimal frost and ice damage. The facility was named for Cam Niederhof, a Westvaco executive, who served as a SCFC Commissioner for 24 years.

Second-generation loblolly pine orchards were established from 1985-1989, totaling 322 acres. NFC's orchards came into production in 1993 with some 4,542 bushels collected from both Coastal and Piedmont province orchards; to date some 54,350+ bushels have been collected.

The addition of a Forestry Technician I position in March 2008 continued to serve the Commission well over the past fiscal year. Stationing of the technician at Niederhof has permitted prompt response to 13 wildfire dispatches to date; additionally, the technician has assisted Edisto Unit personnel in conducting controlled burns. The technician likewise has continued to contribute greatly to facility and equipment maintenance, orchard management practices, and seed processing.

Third-cycle orchard establishment is now at 16.1 acres of Coastal loblolly and 12.4 acres Piedmont loblolly, which translates to 91.5% and 94.4% complete, respectively. In the spring of 2010, an additional 99 Coastal loblolly grafts and 55 Piedmont grafts were made, which will allow the completion of third-cycle orchards. Due to the continuing analysis by the North Carolina State Cooperative Tree Improvement Program (NCSUCTIP), an additional outstanding SCFC Piedmont selection was added to this year's grafting for inclusion into the orchard.

This spring also marked a renewed interest in longleaf orchard expansion. Upon analysis of the existing 1.5 generation orchard composition, we elected to collect scion from the top 5 selections based upon progeny test scores for height growth, volume gain, straightness, and resistance to fusiform rust. 15 scion from each selection was obtained and grafted onto three-year-old longleaf seedlings established adjacent to the orchard. Additionally, we obtained 15 scion from each of the North Carolina Forest Service's top five selections for inclusion into this expansion block. 39 living grafts will be transplanted into orchard spacing this fall to provide an additional 0.81 acres of orchard; additional grafting is planned for the spring of 2011.

2009 proved to be a very good year to collect longleaf cones, as exceptional crops occur in 5-7 year cycles. Utilizing some of the federal grant monies the Forestry Commission received which targets longleaf pine restoration, NFC collected 840 bushels cones from our 1.5 Generation orchard, and purchased another 4,500 bushels from vendors collecting cones from natural stands. Relying on a partnership with the USFS, 936 bushels were collected by USFS personnel at the Savannah River Site and processed at NFC, with the seed from that collection divided evenly between parties. Seed processing yielded a total of 3,557.05 pounds of longleaf seed obtained from 6,276 bushels harvested from all locations. To help provide higher germination longleaf seed for containerized seedlings, 550 pounds of longleaf seed was processed over a specific gravity table prior to sowing at Taylor Nursery.

The 2009 2nd generation loblolly cone harvest yielded 1,348 bushels; seed processing netted 801.85 pounds. Utilizing new data from the NCSUCTIP, selected family lots collected are being grown at Taylor Nursery to enhance the potential revenue a landowner may expect from reforestation with these seedlings. NFC's annual sale of seed and pine cones generated \$91,792.82 in revenue: to date, Niederhof's 2nd-generation orchards have created additional revenue in the amount of \$1,561,560.45 from cone and seed sales.

Our relationship with Cellfor continues to provide the Forestry Commission with additional revenue opportunities while promoting valuable research through tree breeding activities. Cellfor is a full member of the NCSUCTIP and continues Cooperative breeding and testing at NFC. The Forestry Commission continues as a Contributing Member of the NCSUCTIP. As funding for the Commission's Tree Improvement facility remains tenuous, our research agreement with Cellfor is a vital component of funding operations.

Tree Seedlings Planted by Landowner Classification 2009-2010

Land Ownership	Pines Planted	Hardwoods & Others Planted	Total Number of Trees Planted	Percent of Total
Non-Industrial Private Landowners	29,054,277	561,876	29,616,153	71.3%
Forest Industry	10,204,275	17,686	10,221,961	24.6%
Government	803,385	425,220	1,228,605	2.9%
Corporate	468,489	14,137	482,626	1.2%
Total	40,530,426	1,018,919	41,549,345	

Source of Seedlings Distributed in South Carolina

Nurseries in South Carolina	Pines Distributed	Hardwoods & Others Distributed	Total Number of Trees Distributed	Percent of Grand Total
ArborGen (Bleinham, SC)	15,022,075	329,235	15,351,310	36.9%
Weyerhaeuser	10,713,250	19,875	10,733,125	25.8%
South Carolina Forestry Commission	3,181,180	581,809	3,762,989	9.1%
Total	28,916,505	930,919	29,847,424	71.8%

Nurseries Outside of South Carolina

ArborGen (Belleville, GA)	5,880,621	0	5,880,621	14.2%
Plum Creek	2,300,000	0	2,300,000	5.5%
Meeks	1,300,000	0	1,300,000	3.1%
Bodenhamer	1,300,000	0	1,300,000	3.1%
International Forest Company	364,300	75,000	439,300	1.1%
North Carolina Forest Service	344,000	13,000	357,000	0.9%
Blanton's	125,000	0	125,000	0.3%
Total	11,613,921	88,000	11,701,921	28.2%

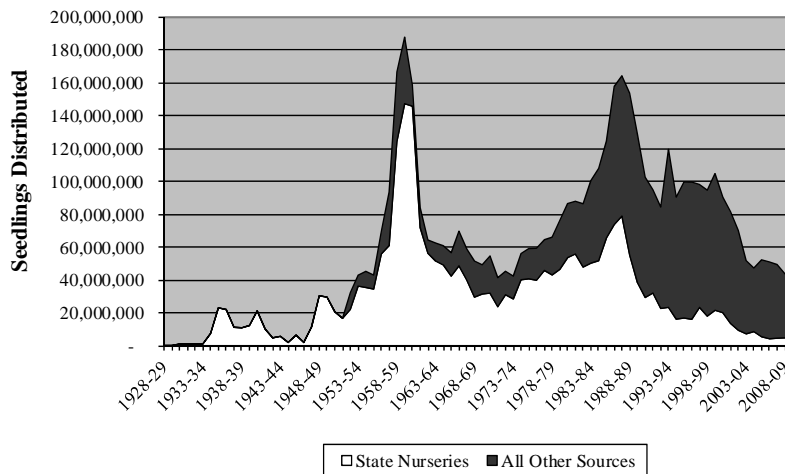
Grand Total	40,530,426	1,018,919	41,549,345	100%
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State Nursery Seedling Production & Sales for FY 2009-2010

<u>Species</u>	<u>Seedlings Produced</u>	<u>Seedlings Sold</u>	<u>% Sold</u>
Ash, Green	8,000	3,300	41%
Atlantic White Cedar CTR	3,200	3,200	100%
Baldcypress	20,000	8,260	41%
Cedar, Eastern Red	41,260	41,260	100%
Cherry, Black	740	740	100%
Crabapple	4,810	4,810	100%
Lespedeza, Attaway	51,230	51,230	100%
Leyland Cypress CTR	14,994	14,994	100%
Loblolly Pine, Coastal 2nd gen.	105,400	105,400	100%
Loblolly Pine, Coastal 2nd gen. SRS	315,000	315,000	100%
Loblolly Pine, Coastal Best Family	80,000	80,000	100%
Loblolly Pine, Piedmont 2nd gen.	418,960	418,960	100%
Loblolly Pine, Piedmont Best Family	719,150	719,150	100%
Longleaf Pine	743,090	743,090	100%
Longleaf Pine, SRS	101,000	101,000	100%
Longleaf Pine CTR	1,007,200	1,007,200	100%
Oak, Cherrybark	14,045	14,045	100%
Oak, Gobbler	7,840	7,840	100%
Oak, Live	3,230	3,230	100%
Oak, Northern Red	3,350	3,350	100%
Oak, Sawtooth	12,510	12,510	100%
Oak, Swamp Chestnut	3,740	3,740	100%
Oak, White	9,600	9,600	100%
Oak, Willow	4,860	4,860	100%
Palmetto, Cabbage	665	665	100%
Persimmon	8,880	8,880	100%
Plum	1,830	1,830	100%
Redbud	1,500	900	60%
Sweetgum	7,500	110	1%
Sycamore	1,140	1,140	100%
Virginia Pine	6,050	6,050	100%
Virginia Pine, Christmas Tree Stock	35,950	35,950	100%
Walnut, Black	2,775	2,775	100%
White Pine	21,570	21,570	100%
Wiregrass, CTR	3,600	3,600	100%
Yellow Poplar	3,640	3,640	100%
Totals	3,788,309	3,763,879	99%

Seedling Distribution 1928-2010

Total State			Total State		
Year	Nurseries	Total All Sources	Year	Nurseries	Total All Sources
1928-29	142,000	142,000	1969-70	31,415,000	49,203,000
1929-30	148,000	148,000	1970-71	31,940,000	54,541,000
1930-31	986,000	986,000	1971-72	23,678,000	41,357,000
1931-32	976,000	976,000	1972-73	30,978,000	45,239,000
1932-33	996,000	996,000	1973-74	28,443,000	42,306,000
1933-34	1,031,000	1,031,000	1974-75	40,082,000	55,997,000
1934-35	7,529,000	7,529,000	1975-76	40,664,000	59,063,000
1935-36	23,000,000	23,000,000	1976-77	39,795,000	59,238,000
1936-37	22,000,000	22,000,000	1977-78	45,735,000	64,380,000
1937-38	11,192,000	11,192,000	1978-79	43,010,000	65,937,000
1938-39	10,854,000	10,854,000	1979-80	46,375,000	76,207,000
1939-40	12,244,000	12,244,000	1980-81	53,513,000	86,420,000
1940-41	21,165,000	21,165,000	1981-82	55,728,000	87,793,000
1941-42	10,275,000	10,275,000	1982-83	47,799,000	86,265,000
1942-43	4,742,000	4,742,000	1983-84	50,170,000	100,394,000
1943-44	5,663,000	5,663,000	1984-85	51,636,000	107,718,000
1944-45	1,963,000	1,963,000	1985-86	65,465,000	124,381,000
1945-46	6,402,000	6,402,000	1986-87	73,555,000	157,523,000
1946-47	1,963,000	1,963,000	1987-88	78,788,000	164,095,000
1947-48	11,357,000	11,357,000	1988-89	55,052,000	153,450,000
1948-49	30,389,000	30,339,000	1989-90	38,356,000	128,475,000
1949-50	29,502,000	29,502,000	1990-91	29,297,000	102,384,000
1950-51	20,615,000	20,615,000	1991-92	31,984,000	94,710,000
1951-52	16,619,000	16,619,000	1992-93	22,665,000	84,287,000
1952-53	22,036,000	32,246,000	1993-94	23,286,000	119,311,000
1953-54	36,210,000	42,852,000	1994-95	16,154,000	90,336,000
1954-55	35,373,000	45,182,000	1995-96	16,841,000	99,549,000
1955-56	34,414,000	42,932,000	1996-97	16,058,000	99,439,000
1956-57	55,754,000	69,659,000	1997-98	23,278,000	97,963,000
1957-58	60,846,000	93,369,000	1998-99	17,955,000	94,539,000
1958-59	123,985,000	166,351,000	1999-00	21,524,000	104,594,000
1959-60	147,146,000	187,516,000	2000-01	20,095,000	90,346,000
1960-61	145,609,000	158,331,000	2001-02	13,500,000	81,431,000
1961-62	71,892,000	83,844,000	2002-03	9,376,000	69,989,000
1962-63	56,191,000	64,202,000	2003-04	7,202,000	51,823,000
1963-64	51,446,000	62,424,000	2004-05	8,563,000	47,243,000
1964-65	49,010,000	60,683,000	2005-06	5,437,000	52,165,000
1965-66	42,311,000	56,529,000	2006-07	4,206,000	50,900,000
1966-67	48,575,000	69,598,000	2007-08	4,539,842	49,320,517
1967-68	39,970,000	58,812,000	2008-09	4,739,783	43,692,314
1968-69	29,529,000	51,453,000	2009-10	3,762,989	41,549,345
Total State Nurseries			2,574,640,614		
Total All Sources			4,973,239,176		



SCFC Active Seed Orchards

Orchard Type	Years Established	Acres
Creech Seed Orchard/Manchester State Forest		
Genetic Diversity Archives (Clone Banks)	1977-1983	25
Coastal Loblolly Pine 1.0 Rust Resistant	1971	5
Longleaf Pine 1.0	1971	12
Virginia Pine 1.0 (Creech)	1980	1
Virginia Pine 1.0 (Manchester)	1986	2
Sawtooth Oak 1.0 Seedling	1990	2
Total		47
Niederhof Seed Orchard		
Cellfor Genetic Archives, 3rd Cycle	2008-2009	4.2
Coastal Loblolly Pine 2.0	1985-1988	68.3
Piedmont Loblolly Pine 2.0	1985-1988	63.1
Longleaf Pine 1.0	1988-1990	30
Loblolly Pine Breeding Orchard 3.0	1997-2003	7.2
Longleaf Pine Seedling Seed Orchard	1998	8
Coastal Loblolly Pine 3.0	2005-2009	16.1
Piedmont Loblolly Pine 3.0	2005-2009	12.4
Total		209.3
Coastal Seed Orchard		
Sycamore 2.0	1992-1995	4
Sweetgum 2.0	1992-1995	6
Willow Oak Seedling Seed Orchard	1992-1995	1
Swamp Chestnut Oak Seedling Seed Orchard	1992-1995	1
Green Ash Seedling Seed Orchard	1992-1995	3
Red Maple Seedling Seed Orchard	1992-1995	1
Southern Red Oak Seedling Seed Orchard	1992-1995	2
White Oak Seedling Seed Orchard	1992-1995	2
Total		20
Piedmont Seed Orchard		
White Pine 1.5	1991-1993	12
Virginia Pine 1.0	1993	3
Northern Red Oak Seedling Seed Orchard	1993-1995	2
Total		17
Grand Total		293.3

ENVIRONMENTAL MANAGEMENT

The Environmental Management Section is responsible for the development and implementation of South Carolina Forestry Commission programs that are related to the environmental protection of forest and associated natural resources. Issues that are addressed include the protection of water quality, site productivity, endangered species, and unique ecosystems.

BMP Implementation Monitoring

Compliance with Best Management Practices (BMPs) related to timber harvesting was 98.6% for 2007-2008, demonstrating continual improvement since monitoring began in 1990. Compliance for harvesting BMPs was 84.5% in 1990, 84.7% in 1991, 89.5% in 1994, 91.5% in 1999, 94% in 2001, and 98% in 2005. Evaluation of difficult and borderline sites by a review team of outside experts resulted in 91.3% agreement, showing strong consensus on BMP implementation and identification of potential water quality impacts.

BMP Education/Training Program

BMP training and education are essential to the success of the Forestry Commission's non-regulatory BMP program. During this fiscal year, 4,196 contact hours of training were held across the state for loggers, landowners, contractors, and forest resource professionals. Included in these meetings were eight workshops for the Timber Operations Professional (TOP) logger training and education program. BMP Foresters participated in 25 programs reaching 963 individuals.

Courtesy Exam Program

The S.C. Forestry Commission's BMP Foresters, located in each of the three operating regions of South Carolina, offer courtesy BMP exams to landowners, foresters, and timber buyers. The BMP Forester makes site-specific BMP recommendations to follow while conducting forestry activities. During the 2009-2010 fiscal year, the BMP Foresters provided assistance on 576 sites and completed 373 courtesy exams. BMP Foresters also conducted 74 hours of aerial observation for active forestry operations and responded to 53 complaints.

Endangered Species

The Environmental Management Section monitored endangered species developments with an emphasis on those species that may impact forestry operations. Species of interest include the Red-cockaded Woodpecker, Flatwoods Salamander, and Carolina Heelsplitter. The BMP Foresters are available to provide information and assistance to SCFC personnel, foresters, and private landowners. This assistance may include site visits, cooperating on the Safe Harbor program administered by the S.C. Department of Natural Resources, and assisting State Forests and other state-owned properties upon request.

Cooperation with Other Agencies

Programs related to environmental protection of forest resources require close cooperation with other agencies. S.C. Forestry Commission has a Memorandum of Understanding with S.C. Department of Health and Environmental Control (DHEC) addressing cooperation on water quality issues. The Environmental Management Section serves as technical authority on silvicultural activities, and cooperates with DHEC on evaluation and remediation of possible impacts. In March 2010 SCFC entered a Memorandum of Understanding with the US Army Corps of Engineers to better serve forest landowners and jointly address silvicultural issues in jurisdictional wetlands. BMP Foresters often work with DHEC and the U.S. Army Corps of Engineers when those agencies have regulatory authority over issues which may affect forestry operations, such as wetlands and navigable waterways. BMP Foresters also provide assistance with planning and implementation of Best Management Practices on public lands managed by other agencies.

TECHNOLOGY DIVISION

An internal reorganization in FY07 established the Technology Division. This Division comprises of the Information Technology Section, Geographic Information Systems (GIS) Section, Communications Section, and Dispatch Operations Section.

INFORMATION TECHNOLOGY

The Information Technology Section is responsible directly and indirectly for the maintenance and support of the agency's local and wide area network, nine (9) Windows Server 2003 Servers, one (1) Windows NT Server, network storage devices, over 150 computer users, software applications and implementation of various initiatives to support agency operations and programs.

The agency purchased 28 desktops and 22 laptops in FY 2010 to replace computers that were over 6 years old or models experiencing a high failure rate due to a defective component on their motherboard. Also targeted were computers to be utilized with SCEIS, the State's new enterprise accounting system.

The IT Section implemented technical requirements so personnel would be able to access applications within SCEIS. This involved configuration changes to the agency's firewall; testing for adequate Internet bandwidth; installing and configuring Citrix client software; configuration changes to browser software; and the installation of imaging equipment and software.

GIS

A major project for the GIS Section this year was gathering spatial data and creating models to analyze forest conditions and trends in the state and delineate priority forest landscape areas. This information was used in the development of a statewide assessment of forest resources and the development of long-term strategies for investing state, federal, and other resources to manage priority landscapes.

The Forestry Commission continued development of an Enterprise GIS System to support USDA Forest Service Spatial Accomplishment Reporting requirements and BMP program. The system will focus around a spatial database and mobile GIS application for field personnel to capture forest management activities and to develop management plans and maps. As time and funding permits, this Enterprise GIS System will also be utilized for agency property management; wildland and urban interface planning; fire management applications; state forest and state lands management; natural disaster survey and recovery work; and possible an agency GIS presence on the Internet.

The Southern Group of State Foresters is updating the GIS model that analyzes the risk of wildfires in the southern region of the US to make it more interactive. The Southern Fire Risk Assessment System identifies the potential for serious fires and prioritizes areas where mitigation options may be desirable. The GIS analyst is assisting in updating data layers used in the model to better represent local South Carolina conditions for further use by agency Fire Managers.

A graduate level GIS internship program with the University of South Carolina was established in 2006. This program provides an opportunity for students to be exposed to state government activities and utilize GIS technology in a real world setting. In FY10, the intern was responsible for generating map layers for the Forest Resource Assessment; cleaning up spatial layers; entering stewardship plan data for the agency's geodatabase; projects involving the creation of mosaics of aerial photographs; and 911 address and centerline layer for the agency's computer aided dispatch system. She also assisted ArcGIS users with application problems or questions.

COMMUNICATIONS

Using National Fire Plan grants, the Forestry Commission completed updating its two-way radio system to narrowband technology as mandated by Federal Communications Commission regulations. Federal agencies were mandated to migrate to narrowband by 2006 and all other users by 2013. Replacement of all agency's mobile radios (555), base stations (7), repeaters (26), and portable radios (300) with narrowband capable equipment was completed in FY09. With all equipment in the field narrowband capable, the next phase will be to re-license and move all the agency's VHF radio frequencies to narrowband spacing to meet the January 1, 2013 deadline.

The agency maintains 46 Palmetto 800MHz radios for Law Enforcement Officers; Hurricane Evacuation; and Incident Management Teams for better interoperability with other Federal, State, and local agencies. One is being used as a base station that is incorporated with the agency's dispatch centers. Two 800MHz radios were installed in agency aircraft this year that will be utilized to monitor Hurricane Evacuation routes along the coast.

The Communications Section is looking at Radio over IP and Voice over IP dispatch consoles to replace the agency's "end-of-life" analog radio dispatch consoles and phone systems. Products in this area have matured over the past few years and become less proprietary – important features for reliability and interoperability for mission critical communications. With the assistance of federal grants, it is anticipated that a contract could be awarded in 2011 and equipment installed by 2012.

DISPATCH OPERATIONS

The Forestry Commission operates three (3) dispatch centers that handles over 60,000 phone calls for burn notifications for the purpose of forestry, wildlife or agricultural and reporting of wildfires. On July 1, 2005 (i.e. FY 2006), the agency went "live" with a new computer aided dispatch and records management systems. These systems replaced a custom developed application implemented in 1996. Federal funds from the National Fire Plan and other grants were used to fund this new system.

Utilizing commercial, "off-the-shelf" dispatching software from Logistic Systems, Inc., the system incorporates many of the features and functionality of 911 dispatch systems. The new system determines the closest available unit based on road mileage and travel speeds; automates the notification of personnel of wildfires; alerts dispatchers when certain dispatching timeframes are exceeded; allows for the utilization of automated vehicle location (AVL) technology; and automates the compliance issues with smoke management regulations on forestry, wildlife and agricultural burn notifications. The software was upgraded to version 4.4 in July, 2008 which met the final requirements needed for system acceptance.

As a performance measure in the Forestry Commission's Accountability Report, the average time from receiving the wildfire call and assigning a firefighter (i.e. Dispatching) has been cut in half compared to the FY 2005 average (see table below). The processing of smoke management notifications has also decreased by 30% compared to the FY 2005 average. These time savings can be attributed to the new dispatch software's automation of dispatching and compliance with smoke management guidelines.

**SUMMARY AND COMPARISON OF DISPATCH TIMES
FOR FISCAL YEAR 2004 through 2010**

TIMES	FY 2004 Average (Minutes)	FY 2005 Average (Minutes)	FY 2006 Average (Minutes)	FY 2007 Average (Minutes)	FY 2008 Average (Minutes)	FY 2009 Average (Minutes)	FY 2010 Average (Minutes)
Dispatching	5.10	6.33	4.18	3.56	3.53	3.22	3.13

**SUMMARY AND COMPARISON OF SMOKE MANAGEMENT NOTIFICATIONS PROCESSING TIMES
FOR FISCAL YEAR 2004 through 2010**

TIMES	FY 2004 Average (Minutes)	FY 2005 Average (Minutes)	FY 2006 Average (Minutes)	FY 2007 Average (Minutes)	FY 2008 Average (Minutes)	FY 2009 Average (Minutes)	FY 2010 Average (Minutes)
Processing Time	4.16	4.61	3.49	2.81	3.00	3.13	3.21

The new dispatching software includes applications that allow for remote, real-time access to wildfire, prescribed fires, and resource activity. Fire Managers and Fire Information Officers have access to current information for command and control functions and media requests. Using virtual private network (VPN) connections through the Internet or cellular wireless broadband services, agency personnel in the field have real-time access to dispatching activity throughout most of the state or nation.

An interface has been added to the computer aided dispatch system that generates an export file containing current smoke management burn notifications and wildfires every 30 minutes. This export file is uploaded to the US Forest Service Southern High Resolution Modeling Consortium for use in air quality, fire control, smoke modeling, and impact mitigation work. Copies are also uploaded to the SC Geographic Information Council to share with state agencies like DHEC (Air Quality Division) and the SC Emergency Management Division. Several counties are also interested in this information for various situation awareness applications they are developing.

ADMINISTRATION

STRATEGIC PLAN

Strategic Plan accomplishments are monitored and reported on a quarterly basis. Such report is distributed at Commission Meetings.

ANNUAL ACCOUNTABILITY REPORT

As required, the Annual Accountability Report is compiled and submitted by September 15th to the Office of State Budget. Such Report is prepared by our Senior Consultant who also serves on the Executive Committee for the South Carolina State Government Improvement Network.

INTERNAL AUDIT

During FY 10 Internal Audit verified 10% of the agency's custodians' fixed asset inventories. In addition, fiscal year-end inventories were performed in select shop locations. Analyses and reconciliations have been performed of the agency's fuel purchases and are on-going. Identified concerns and opportunities for improvement are being addressed. As a result, a savings of \$888 was received in FY 10. Analyses have also been performed on the customer satisfaction surveys for forest management plans, stewardship plans, and services. Again, identified concerns and opportunities for improvement are being addressed to ensure quality service.

Internal Audit was also aware and involved where applicable in reviews performed by external sources such as the Budget and Control Board's Division of State Fleet Management. Management is kept abreast of any issues that warrant attention.

During FY 10, the Internal Auditor performed a peer review for the Budget and Control Board's Division of State Fleet Management. The Internal Auditor has obtained adequate training to maintain compliance with the continuing education requirements of the Government Auditing Standards.

RECORDS MANAGEMENT

Internal Audit oversees the Records Management System for the Commission. The Internal Auditor serves as Records Officer. Record Liaison Officers have been selected based on the Commission's organizational structure. The Records Officer is responsible for training the Record Liaison Officers. Such training is performed periodically to ensure consistency and continuity.

During FY 10, a total of 77.35 cubic feet of official records were destroyed in accordance with the retention schedules approved by the South Carolina Department of Archives and History. This total does not include the destruction of copies.

During FY 10, the Records Officer served on the Awards Committee for the South Carolina Public Records Association. She also briefly served as Administrator for the Midstate Region before she was asked to serve on the Board of Directors for the South Carolina Public Records Association.

FINANCIAL STATEMENT				
FISCAL YEAR 2009 - 2010				
	REVENUES			
	State Appropriations		\$ 12,080,563	
	Federal Grants		\$ 5,790,522	
	Earmarked Funds			
	Hunting & Fishing License		\$ 178,993	
	Refund of Prior Year Expenditure		6,459	
	Burning Assistance Fee		567,795	
	Fire Lane Fee		155,818	
	Timber Marking Fee		23,178	
	Training Conference - Registration Fee		2,354	
	User Fee - State Park & Forest		96,052	
	Forest Product Assessment		762,057	
	Construction of Water Bar		1,665	
	Stand By for Prescribed Burning		6,500	
	Sale of Seedlings		517,408	
	Sale of Timber		3,684,040	
	Conviction Surcharge		19,939	
	Miscellaneous Revenue		-	
	Rent - Residence		16,946	
	Rent - Farm Land		46,530	
	Rent - State Owned Property		33,568	
	Rent - Equipment		2,584	
	Contributions & Donations		471	
	Insurance Claims		8,980	
	Sale of Services		58,968	
	Sale of Recycling Material		5,398	
	Sale of Vehicles (Capitalized)		12,561	
	Sale of Machinery and Equipment (Capitalized)		20,911	
	Sale of Buildings (Non-Capitalized)		342	
	Sale of Land (Capitalized)		1,231,580	
	Increased Enforcement Revenue (Dept. Of Revenue)		500,000	
	Total Earmarked		\$ 7,961,098	
	Total Revenue		\$ 25,832,182	
	EXPENDITURES			
	State		\$ 12,080,313	
	Federal		\$ 6,584,034	
	Other		\$ 6,332,789	
	Total Expenditures		\$ 24,997,135	
	EXCESS OF REVENUES O/(U) EXPENDITURES		\$ 835,047	

South Carolina Forestry Commission

Organization Chart

